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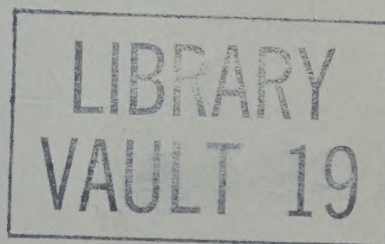
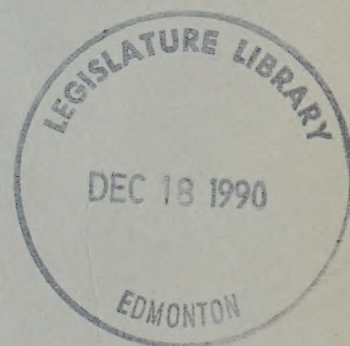
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MINISTER  
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DEPUTY MINISTER  
DR. E. E. BALLANTYNE

# INDUSTRY AND RESOURCES

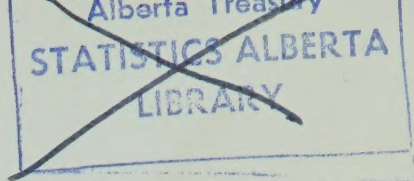


## ALBERTA CENSUS DIVISION 12

ECONOMICS DIVISION  
RURAL DEVELOPMENT RESEARCH BRANCH







INDUSTRY AND RESOURCES

OF

CENSUS DIVISION 12

by

Jerry F. Bigam

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VICTOR T. JANSSEN

Branch Head



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## PREFACE

Northeastern Alberta (Census Division #12) is the second rural development area established in Alberta under the Agricultural and Rural Development Act (A.R.D.A.). In 1964-65, local residents requested that a comprehensive socio-economic analysis be made to determine what problems were present which limited economic growth and development. Income and employment levels were considered to be low relative to the potential in this area and compared with provincial levels.

In response to this request, the Provincial and Federal governments agreed to jointly finance a program of rural development in the area. The first step is an inventory of the existing resources and situation. Analysis of problems and potentials will be made by the local people in collaboration with rural development specialists. Recommendations for improvement of the situation will follow.

This is one of a series of reference papers prepared as background information for use of study groups and action bodies in the local area. The series will include papers on: Agriculture, Human Resources, Resource Base, Recreation and Supporting Services. It is expected that deliberations of the study groups and other local meetings will provide a basis for an Overall Economic and Social Development Plan which may be used as a guide to overcome problems and remove roadblocks to social and economic improvement in the area. Essentially, local people will determine ways to help themselves with the help of government advisors and programs. A sound Development Plan may also provide justification in future for some cooperative government financial aid in activating the program.

Staff members from the Rural Development Research Branch, Economics Division and the Regional Development Co-ordinators of the Program Development Division will work together with local people in this study and self-help operation.

Dr. Glen R. Purnell  
Director  
Economics Division



## ACKNOWLEDGEMENTS

The assistance of personnel in private industry and various government agencies is gratefully acknowledged. Special thanks to Mr. D. D. Tamney and Miss K. A. Snider of the Alberta Bureau of Statistics for providing much of the statistical background. Appreciation is also extended to the Forest Management Plans Section and the Fish and Wildlife Branch of the Department of Lands and Forests.

Also, the services of Miss C. M. Gallagher, typist and Miss S. A. Smart, typist, are gratefully acknowledged.

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J. F. Bigam  
Economist

## INTRODUCTION

Economic and social development has always been a major goal of the people in Alberta. Ever since the original settlers entered the territory, great efforts have been made to obtain a living from the existing resources. Labour, capital and management were combined with raw resources of the land to provide constantly improved levels of living for the residents. As economic development took place over the years, social amenities such as churches, schools and recreational facilities were also developed. Throughout this process, some areas of the province advanced more rapidly than others. In some instances, the development was erratic with booms and busts as various resources were exploited, new demands expanded and improved technology developed. In accordance with the location of resources and related processing and marketing, some degree of specialized production was noticeable in these areas. This overall socio-economic development was largely self-generated by the local people and the role of government was to provide a framework which permitted maximum progress.

By the 1960's wide variation in the levels of income and employment opportunities existed between areas within Alberta as well as throughout Canada. Resources were not being utilized at optimum levels, considerable waste was occurring in soil and water management and the resulting heterogeneous pattern of socio-economic development suggested the need for a more comprehensive program to be established. It was recognized that a more active role of the local people as well as all levels of government would be necessary to achieve the objectives in this sphere. This situation was highlighted by a national conference, Resources For Tomorrow, in 1961. Papers at this meeting, delivered by authorities in the field, emphasized the gap between potential and actual accomplishments.

Culmination of the attention on the subject resulted in the federal Agricultural Rehabilitation and Development Act of 1961. This legislation provided for joint Federal-Provincial operations and financing of programs in research, resource use and socio-economic development in rural areas. The philosophy of the act was to place government in a more active role to help the people of interested areas improve their level of living. Under the Rural Development section of the act, opportunity was given for government



to help local people inventory their resources, analyze their own situations and outline possible methods of improving income and employment opportunities.

This report is an inventory of the resources in C. D. 12 and as such is intended for use as reference material by interested parties in the area. In many instances, comparisons between C. D. 12 and Alberta figures have been made to focus attention on a problem area. However, since this is an inventory report, no attempt has been made to analyze the causes of the differences, nor to suggest methods of improving the situation. The answers to the problems will come through discussions and co-operation among the people of the area, the business community and all levels of government.

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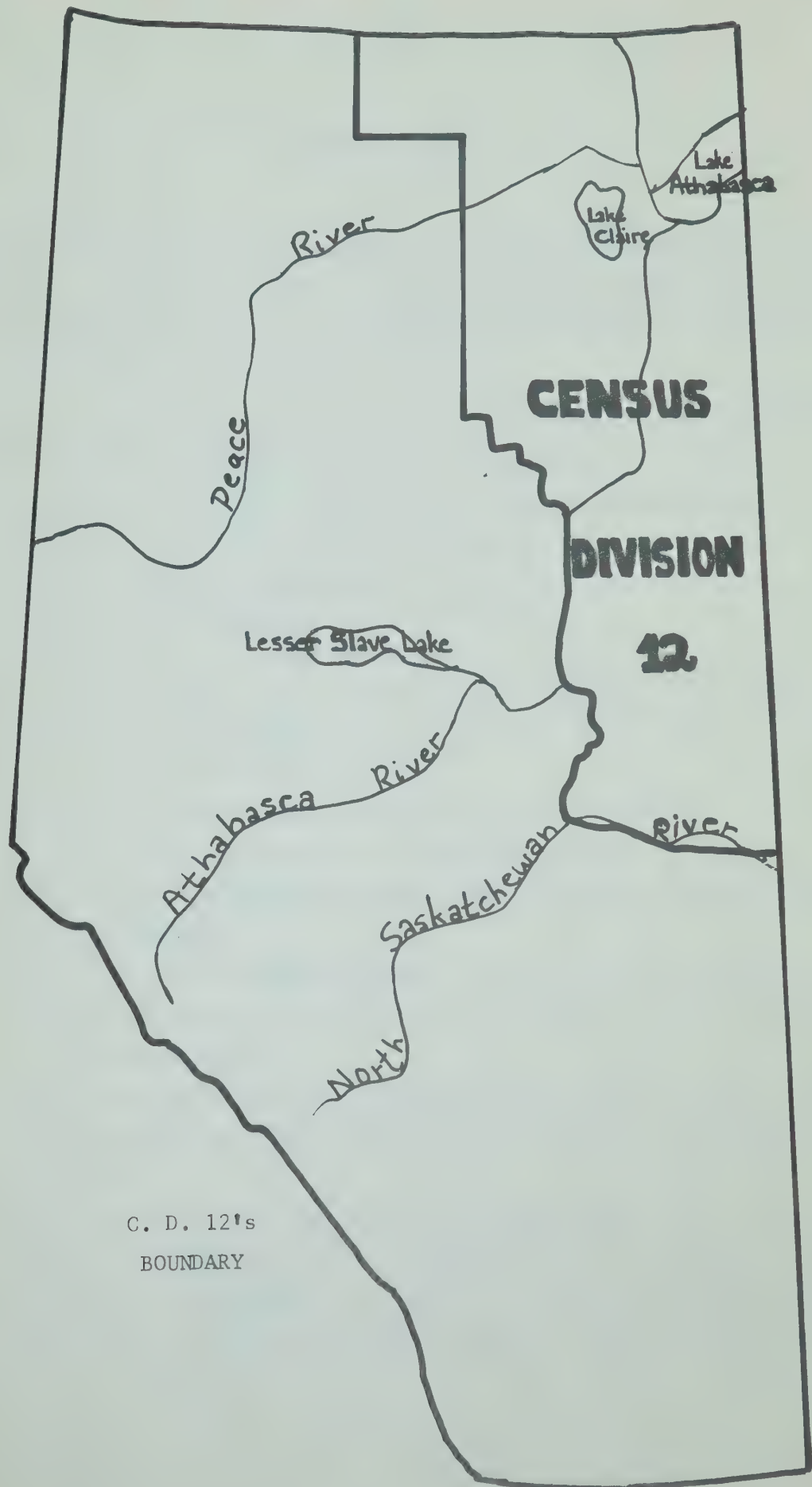
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### SUMMARY

- 1) C. D. 12 has the lowest farm and non-farm average income of any Census Division in Alberta.
- 2) Agriculture is the basic industry of C. D. 12, providing direct employment for almost half the labour force and accounting for approximately 70% of the total value of physical production. It also supports other industries in the area by providing income, and hence purchasing power, as well as inputs for further stages of production (e.g., dairies).
- 3) Vast forests and mineral reserves are available for development, but transportation problems have hampered efforts in this direction. Increased logging activity began in 1966 with substantially increased cuts expected in the next few years. Much of the known mineral deposits lie within Wood Buffalo National Park and consequently cannot be developed. Relatively little detailed mineral exploration has been undertaken.
- 4) The Athabasca Tar Sands contain one of the largest known deposits of crude oil in the world. Development of this resource will help to raise income levels in the area and provide more stable employment.
- 5) Retail, wholesale and service per capita sales all lag far behind the Alberta average per capita figures.
- 6) The area has great potential as a tourist and sportsman's attraction; however, the inaccessibility of the lakes and hunting areas poses a major problem.



Figure 1







## RESOURCE BASE

The resource base of an area refers to those resources, natural, human and otherwise, on which the people of an area rely for their livelihood. The way in which these resources are used determines the level of income and how rapidly the standard of living will rise.

Economic growth and a high standard of living depend upon a large number of factors, but the following are the most important:

1. Productive resources and potentially productive resources.
2. Skilled labour to develop and utilize the resources.
3. Funds to finance development.
4. Market for the products.

A proper combination of the above ensures an adequate standard of living for the population. Conversely, an area of relatively low income, may result from some or all of the following reasons:

1. Limited available human, natural or capital resources.
2. Existing resources may not be developed, perhaps because of transportation difficulties and costs, lack of funds for development, or unstable markets.
3. Resources, even though developed, may not be used efficiently. Human, natural and capital resources may be combined in less-than-efficient production processes.
4. Resources may be available for development, but because of the transportation costs, they may not be competitive in the large market centers.

Throughout this report, comparisons are drawn between C. D. 12 and Alberta figures, simply to indicate relative differences and not necessarily to imply that one situation is preferable to another. In areas where large differences exist, efforts should be made to determine whether or not remedial measures are required.

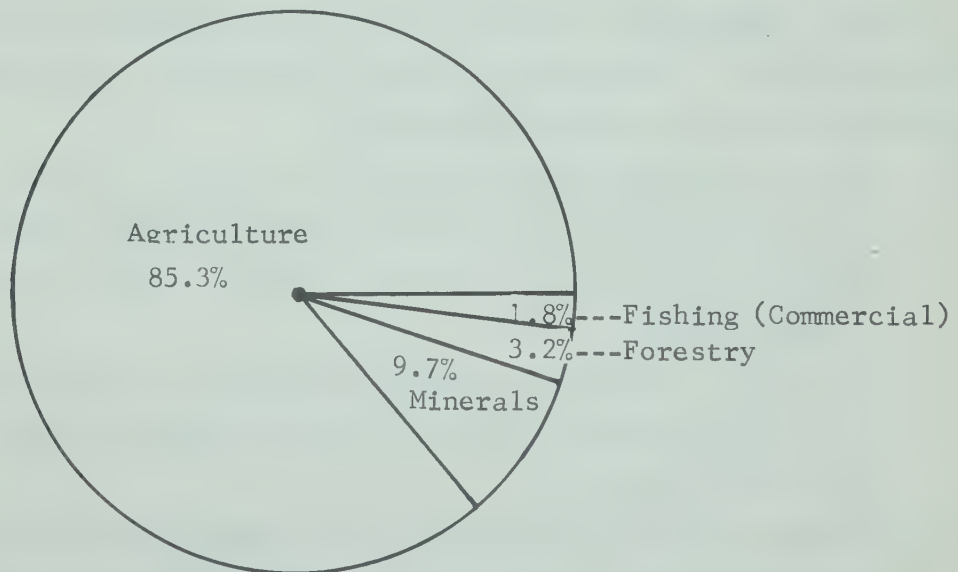
## I. INDUSTRY AND TRADE

### A. PRIMARY INDUSTRIES

Primary industries are defined as those which take resources from their natural state for sale to, and use by, other industries. These primary industries are referred to as the first step in the production process.

The primary industries in C. D. 12 include agriculture, mining, forestry and commercial fishing. The total value of primary production in C. D. 12 in 1961 was \$14,260,000 which was made up as shown in Figure 2.

Figure 2                      COMPONENTS OF PRIMARY PRODUCTION IN C. D. 12  
BY VALUE CONTRIBUTED - 1961



Source: Table A, Appendix.

### Agriculture

C. D. 12 has more than 20% of Alberta's land area, but only 4% of the total farm land. The remaining land area is covered by forests, scrub brush, muskeg and lakes. Much of the farm area of about 2,100,000 acres, is found in the southern section between the Beaver and North Saskatchewan Rivers. About

half of this area is presently under cultivation, but the remainder is still covered by trees and scrub brush. Of this land, an estimated 500,000 acres is suitable for cultivation, but must be cleared and improved before crops can be grown.<sup>1/</sup> Another 160,000 acres of land, located in the green zone, is classed as arable, but has not yet been opened for settlement. The potential farm land, amounting to about 1.8 million acres, is made up as follows:

|   |            |
|---|------------|
| Total Acres in C. D. 12.....  | 32,000,000 |
| Total Farm Acreage<br>(Including Cultivated and Uncultivated Land)..... | 2,100,000  |
| Total Acreage Presently Cultivated.....                                 | 1,100,000  |

Land Which Can Be Improved (A.R.D.A. 4\* or Better)

\*\*\*White and Yellow Zones (Open For Settlement)

|                      |                 |
|----------------------|-----------------|
| - Crown Land.....    | Insignificant   |
| - Patented Land..... | 500,000 Acres** |

\*\*\*Green Zone (Withdrawn From Settlement)..... 160,000 Acres\*\*

Total Land Suitable For Farming..... 1,760,000 Acres

---

\* Soils which have severe limitations that restrict the range of crops or require special conservation practices or both.

\*\* Unpublished data. Department of Agriculture, Economics Division.

\*\*\* See Figure 4 for boundaries of zones and page 12 for definitions. This undeveloped land provides an opportunity for increased farm production.

In 1961, the total value of agricultural products sold in C. D. 12 amounted to \$12,200,000, which was 2.8% of the Alberta total.<sup>2/</sup> Main sources of revenue came from the sale of hogs, wheat, cattle, dairy products, coarse grains, fur-bearing animals and poultry. Income per cultivated acre was somewhat less than the provincial average with 4% of the cultivated land area producing only 2.8% of farm income.

In terms of value contributed, Figure 2 shows that agriculture accounted

---

<sup>1/</sup> Source (10).

<sup>2/</sup> Table A, Appendix.



for 86% of the value of primary production in C. D. 12 in 1961.

Agriculture is the most important industry in the area in terms of employment as well, with 46% of the labour force employed directly in agricultural production.<sup>1/</sup>

A detailed treatment of this industry can be found in Agriculture C. D. 12, which is another publication of the Economic Division of the Department of Agriculture.

### Mining and Minerals

In 1961, mineral production in C. D. 12 amounted to \$1.4 million. Salt production accounted for most of the revenue in this sector. Salt deposits underlie much of this area at depths varying from a few feet to hundreds of feet. Developed deposits are found near Elk Point where wells at Lindberg are producing salt for domestic and industrial consumption. In 1966, approximately 75,000 tons valued at about \$1.1 million<sup>2/</sup> were produced at this site. Excellent deposits of salt are located around Waterways. These were mined and refined at Waterways until a few years ago when transportation costs made the output non-competitive with wells closer to the major industrial centers.

Gypsum, used in the production of cement, wallboard and other items, is found along the Salt and Slave Rivers, and at Peace Point. The Peace Point deposits located in Wood Buffalo National Park, are estimated to be 1,000,000,000 tons<sup>3/</sup> and are of good commercial quality - 95-97% pure gypsum. The Peace River provides an access route and makes possible some mining economies since much of the overburden has been washed away. The deposits along the Slave and Salt Rivers are also located in Wood Buffalo National Park. The quality of these deposits is not as high as those at Peace Point, but they are suitable for development. The major drawbacks have been that mining is prohibited in the Federal Park and the lack of, or high cost of, transporting the raw material to a production plant and a large market area. If the Federal restriction is relaxed, a rail extension into this area could mean the development of this

---

<sup>1/</sup> Source (9)

<sup>2/</sup> Source (14)

<sup>3/</sup> Source (19)

resource, as these deposits are the most suitable for development, in terms of quality and quantity, in Alberta

Limestone deposits are found around McMurray. However, the low value per ton, the distance to a market and the presence of other readily available limestone deposits has prevented development of this resource..

There are nine small gas fields in C. D. 12 with present reserves totaling nearly 200 billion cubic feet.<sup>1/</sup> However, all have been labelled "beyond economic reach" and the only development has been to supply local utilities in 5 or 6 locations.

Two low-grade coal fields are found in the south-west region extending beyond C. D. 12's border. The total reserves of these fields, including the area outside the C. D. 12 boundary, is 17 million tons.<sup>2/</sup> Once again production is limited to satisfying a small local demand.

The Pre-Cambrian Shield cuts diagonally through the north-east corner of C. D. 12, underlying about 1/5 of the total land area of the Census Division. It is from this geological stratum that much of the mineral wealth of Canada (excluding petroleum and natural gas) is mined. As yet, relatively little detailed mineral exploration has been undertaken in the area for the following reasons:

- (1) High cost of exploratory work.
- (2) Transportation problems.
- (3) Only minor mineral traces known.
- (4) Exploratory activity tends to be concentrated in all areas surrounding operating mines or known mineral deposits.

Traces of low-grade uranium deposits have been found in this area and extensive exploratory operations for uranium are presently being carried out on the Saskatchewan side of the border, near Lake Athabasca.

The greatest stimulus to the economy of this area is the McMurray Tar Sands Project. Great Canadian Oil Sands is spending \$240 million to put into operation the first large scale commercial plant to produce oil from the Tar Sands. By September, 1967, the plant will be producing 45,000 barrels per day or 17,000,000

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<sup>1/</sup> Source (4)

<sup>2/</sup> Source (1)

barrels per year of partly refined crude oil which is then shipped to Edmonton via pipeline. This will add about \$45 million to the value of production in C. D. 12 during the first year of operation. Reserves of oil are estimated to be 600 billion barrels with recoverable oil estimated at 300 billion barrels.<sup>1/</sup> 85 billion barrels of synthetic crude oil are recoverable by the mining technique which is the method presently used. Another 202 billion barrels can be recovered by the "In Situ" method, which involves the injection of chemicals and steam where the overburden is greater than 600 feet deep.

The crude oil is partially refined at McMurray and 100,000 tons of sulphur per year will be a by-product of this process. Tons of silica sand are another by-product, but presently this sand is unsuitable for glassmaking or other commercial processes. As production progresses, suitable silica sand for commercial uses may yet be found. Figure 3 shows the vast area underlying the Tar Sands.

Two other companies have requested permission to establish plants producing a daily quota of 100,000 barrels of crude oil each. Both requests were originally made in 1963 but were deferred until 1968. The main problem is that additional markets must be found for Alberta's present crude reserves before further development of the Tar Sands can proceed. Tar Sands production is limited to 5% of the production from conventional oil wells.

### Forestry

The value of timber production in C. D. 12 in 1965 was approximately \$672,000 which was a fairly significant increase from the value of \$450,000 in 1961.<sup>2/</sup> About 99% of this timber comes from the Lac La Biche Forest, and lumber accounts for almost all of the value of production. Most of this was used in Alberta's construction industry although some was shipped to points as far away as Chicago.

As well as this output, substantial timber cuts were reported from Wood Buffalo National Park. In 1961 output there amounted to about 13 million board feet valued at \$663,000. In 1965 approximately 12 million board feet valued at \$600,000 were cut. Figure 4 shows the location of present and future large scale logging operations.

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<sup>1/</sup> Source: (5)

<sup>2/</sup> Source: (4)



Figure 3

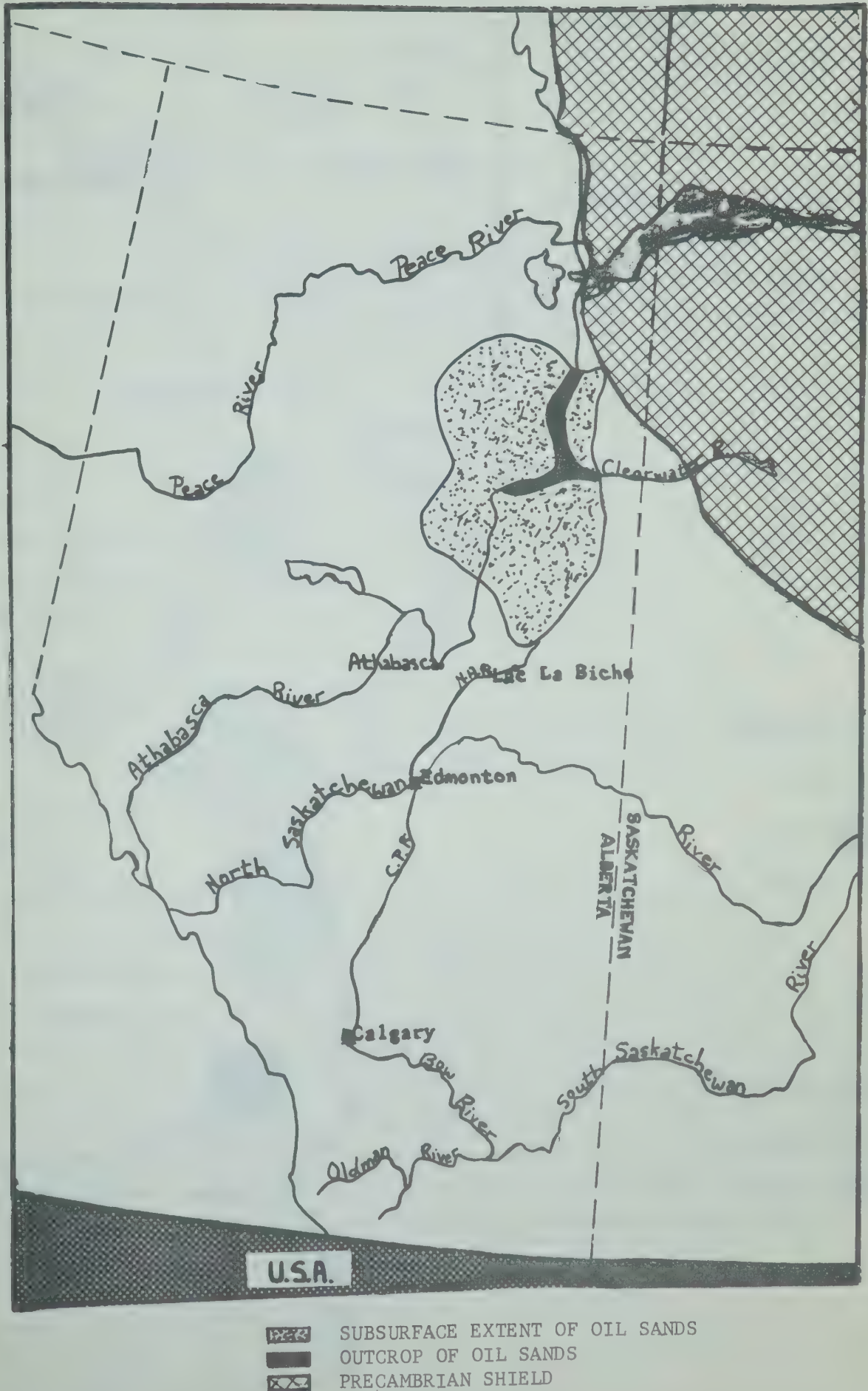







Figure 4

LAND ZONES AND FOREST OPERATIONS  
OF  
CENSUS DIVISION 12

Land Zone Legend

-  Green
-  Yellow
-  White

Logging Operations

-  Future
-  Present

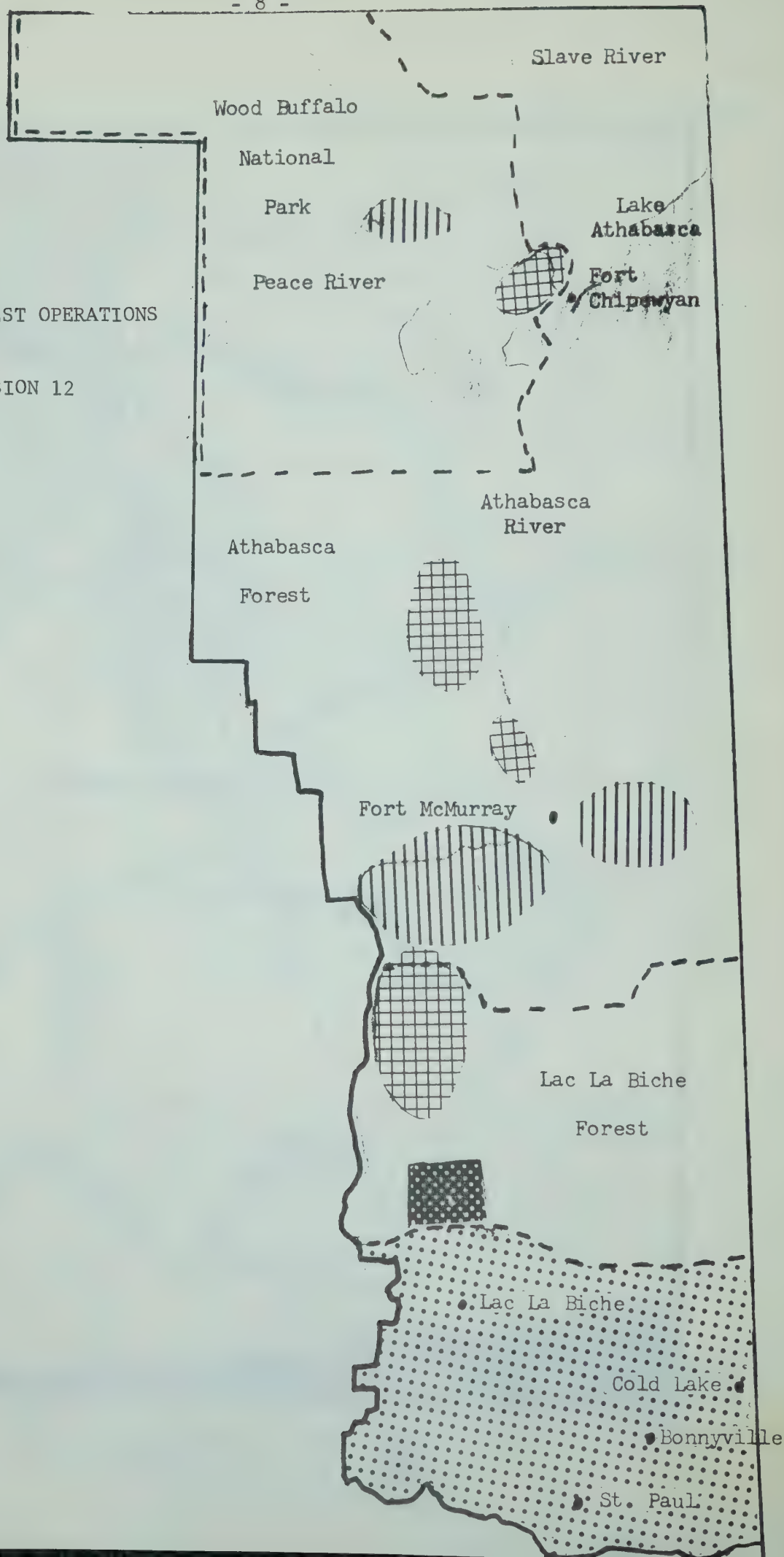


Table 1 shows the value of timber production by forest area in C. D. 12 for 1965.

Table 1  
GROSS VALUE OF TIMBER PRODUCTION  
C. D. 12 (1965)

| Type of Product     | Source of Timber    |     |                        |      |                               |      | Total For<br>C. D. 12 |       |
|---------------------|---------------------|-----|------------------------|------|-------------------------------|------|-----------------------|-------|
|                     | Athabasca<br>Forest |     | Lac La Biche<br>Forest |      | Wood Buffalo<br>National Park |      |                       |       |
|                     | \$                  | %   | \$                     | %    | \$                            | %    | \$                    | %     |
| Fuelwood            | 3,105               | 0.2 | 1,920                  | 0.2  | ---                           | ---  | 5,025                 | 0.2   |
| Lath                | ---                 | --- | 7,268                  | 0.6  | ---                           | ---  | 7,268                 | 0.6   |
| Lumber              | 3,204               | 0.3 | 610,515                | 48.0 | 600,000                       | 47.1 | 1,213,719             | 95.4  |
| Pulpwood            | ---                 | --- | 4,375                  | 0.3  | ---                           | ---  | 4,375                 | 0.3   |
| Plywood Logs-Poplar | ---                 | --- | 9,785                  | 0.8  | ---                           | ---  | 9,785                 | 0.8   |
| Plywood-Coniferous  | 1,987               | 0.2 | ---                    | ---  | ---                           | ---  | 1,987                 | 0.2   |
| Round Timber        | 327                 | ... | 29,799                 | 2.3  | ---                           | ---  | 30,126                | 2.3   |
| Other               | ---                 | --- | 258                    | ...  | ---                           | ---  | 258                   | ...   |
| Total               | 8,623               | 0.7 | 663,920                | 52.2 | 600,000                       | 47.1 | 1,272,543             | 100.0 |

... Insignificant

--- Nil

Until 1965, little logging had been carried on in the Athabasca forest. In 1966, under the quota system, two major operations began. One operation has an annual production quota of 6.8 million board feet which would be valued at \$350,000 at current prices. The company involved in this operation intends to construct both a saw mill and a planing mill in the near future to finish this lumber for sale direct to customers. Another firm has just received an annual production quota of 2.3 million board feet which will be used in the production of plywood in Edmonton. This cut will be valued at approximately \$100,000 per year. Under the quota system, other smaller operators are also beginning to develop this area. The Athabasca forest area is beginning to yield some of its vast timber resources.



C. D. 12 accounts for relatively little of Alberta's total timber production. Output in C. D. 12 amounted to only 2.0% of the Alberta value of production in 1962 and ~~4.5%~~ <sup>2.4%</sup> in 1965.

Table 2

IMPORTANCE OF C. D. 12 TO THE  
GROSS VALUE OF TIMBER PRODUCTION  
1965

| <u>Type of Product</u> | <u>C. D. 12 as %<br/>of Alberta Value</u> | <u>Alberta</u>    |              |
|------------------------|---|-------------------|--------------|
|                        |   | <u>\$</u>         | <u>%</u>     |
| Fuelwood               | 32.4                                      | 15,510            | .1           |
| Lath                   | 8.2                                       | 88,380            | .3           |
| Lumber                 | <del>6.5</del> 3.3                        | 18,603,954        | 66.1         |
| Pulpwood               | ---                                       | 6,817,153         | 24.2         |
| Plywood Logs - Poplar  | 3.3                                       | 300,614           | 1.1          |
| Plywood - Coniferous   | .3  | 769,623           | 2.7          |
| Round Timber           | 3.6                                       | 844,174           | 3.0          |
| Other                  | ---                                       | 692,392           | 2.5          |
| TOTAL                  | <u>4.5*</u> 2.4*                          | <u>28,131,801</u> | <u>100.0</u> |

\* C. D. 12's production as a per cent of total Alberta production.

Source: (4)

Table 3 shows the 1961 timber production in C. D. 12. During the period 1961 - 1965, almost all of the increase in value, from \$450,000 to ~~\$1,300,000~~ <sup>\$1,675,000</sup>, was attributed to increased lumber production.

C. D. 12 has vast, and as yet untouched, timber resources. Lack of roads and the scattered nature of the timber stands has hindered the development of the forest industry. Presently, most of the logging operations are concentrated along the Peace and Athabasca Rivers where transportation is more readily available. There are vast stands of timber which are too immature for development, but will be available for future operations.

Table 3

TIMBER PRODUCTION & VALUES  
FOR PERIOD APRIL 1, 1961 - MARCH 31, 1962  
FROM TIMBER LICENSES AND MISCELLANEOUS OPERATIONS

C. D. 12

| Product              | Unit    | Unit Value | Volume Manufactured | F.B.M.* Equivalent | Total Gross Value |
|----------------------|---------|------------|---------------------|--------------------|-------------------|
| Lumber - Coniferous  | F.B.M.  | \$51.23    | 6,442,408           | 6,442,408          | \$330,044.56      |
| Lumber - Poplar      | F.B.M.  | 41.23      | 232,359             | 232,359            | 9,580.16          |
| Railway Ties         | Pieces  | 1.75       | 9,995               | 349,825            | 17,491.25         |
| Round Timber         | Lin.Ft. | .03        | 1,151,921           | 414,692            | 34,557.63         |
| Mine Ties            | Pieces  | 1.00       | ---                 | ---                | ---               |
| Plywood - Coniferous | F.B.M.  | 39.00      | 1,090,891           | 1,090,891          | 42,544.75         |
| Plywood - Poplar     | F.B.M.  | 25.00      | ---                 | ---                | ---               |
| Pulpwood             | Cords   | 17.50      | 470                 | 211,500            | 8,225.00          |
| Slabs                | Cords   | 2.00       | ---                 | ---                | ---               |
| Fuelwood             | Cords   | 5.00       | 1,666               | 749,700            | 8,330.00          |
| Christmas Trees      | Trees   | .50        | 670                 | ---                | 335.00            |
| Total                |         | ---        | ---                 | 9,491,375          | \$451,108.35      |

\* Foot-board measure.

Source (4)

Timber production is expected to increase gradually in the next two to three years, due mainly to the relatively strong demand for construction lumber. Some of the increase in production will result from the recently implemented quota system. Under the quota system, a logging operator will be assigned a block of timber sufficient for about 50 years of normal production and, therefore, be assured of protection for his investment. Since the operator has exclusive rights to cut timber for this period, he must undertake a re-forestation program and provide better access roads. This system will tend to stabilize production and employment in this industry. Presently, ten of nineteen forest management units in the area have had quota cuts established. The balance will have no quota cuts until accessibility improves, stands mature and markets develop.

The total inventory of forest resources in C. D. 12 is shown in Table 4.

Table B, in the appendix, gives a detailed forest inventory by zones for the area for 1965. The zones are defined as follows:

- 1) Green Zone - withdrawn from settlement, i.e. no farms allowed.
- 2) White Zone - available for all disposition under Public Lands Act, except homestead sales, i.e. farm land on which homestead provisions do not apply - usually developed land.
- 3) Yellow Zone - available for all disposition under Public Lands Act, i.e. homestead provisions apply - usually undeveloped land.

As the table shows, most of the forest resources are on Crown Lands (i.e. green zone) and are, therefore, readily available for logging operations.

For the fiscal year 1961-62, the total timber production in C. D. 12 amounted to approximately 9.5 million board feet. By 1965, total timber production had increased to 12.1\* million board feet. In both years very little pulpwood was produced. The Department of Lands and Forests estimates the long range annual cut of sawtimber to be 139 million board feet. Sawtimber production could, therefore, be increased up to 12 times the present rate and still provide for future operations. An estimated 300,000 cords of pulpwood per year will also be available. These potential cuts would produce an additional \$11,000,000 output per year in the primary sector alone, with the

\*In addition to this production, output in Wood Buffalo National Park amounted to 13 million board feet in 1961 and 12 million board feet in 1965.



resulting stimulus on the other sectors of the economy.

### Fishing

Gross revenue accruing to fishermen from commercial fishing operations was estimated to be \$235,000 in 1961-62. In 1965-66, this figure had risen to \$325,000, an increase of 38%. Table 5 shows the size of the commercial catches in 1961-62 and 1965-66 and the proportion by weight of the different types of fish. (See Table 5, page 16.)

In 1961, whitefish and tullibee accounted for 70% of the total weight caught. In 1965, the tullibee catch remained about the same proportion, while the whitefish catch was down significantly from 1961. However, an increased catch of perch and a higher average value per pound combined to raise the total revenue, even with the decreased catch of whitefish. Tullibee and perch are used as an animal food, mainly by the fur farms in the region. Part of the whitefish, pickerel and pike are processed at plants in the area for export to Canadian and American markets. The remainder is shipped to Edmonton for further processing and sale to local and export markets. One point to note is that the total catch of fish for the years 1962 to 1966 has fluctuated significantly so that Table 5 does not necessarily portray a trend in all instances. However, one trend is definite; namely, that the whitefish catch, which has the second highest value per pound, has steadily declined during the past few years because of the reduced whitefish population. Demand for whitefish has remained strong, and larger catches could probably be marketed without depressing the price.

At the present time, a project<sup>1/</sup> is underway to provide a detailed inventory of the fish population in many of the most northerly lakes. The ultimate reason for this project is to obtain the maximum returns per lake by allowing either commercial or sports fishing, or perhaps both, depending on the fish populations. Many of the more northern lakes have been closed to commercial fishing to allow the lake trout populations to increase. Lake trout is very popular with anglers and the intention is to allow only sports fishing in these lakes. One of the main reasons for this proposal is that most of the smaller

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<sup>1/</sup> Source (13)

northern lakes cannot sustain a regular yearly commercial catch because the fish in these cold waters require such a relatively long period to mature. Another reason is that the development of a sports fishing business provides a higher dollar return per fish caught to the communities than does commercial fishing.

Of course, commercial fishing will still continue in the more southerly lakes, Lake Athabasca and some other northern lakes in which lake trout are scarce. It is encouraging to note that an attempt is being made to maximize the returns from fishing and stabilize the fishing industry by an orderly control over the fish depletion in these lakes.

#### Hydro-Electric Potential

The Slave and Athabasca Rivers provide excellent conditions for hydro-electric power. The Athabasca River, within C. D. 12's boundaries, could provide up to 20 million<sup>1/</sup> horsepower. The Slave River could provide 1.0 million horsepower in the Fort Fitzgerald-Fort Smith area.<sup>2/</sup>

This potential has not been developed because of insufficient demands for this quantity of electricity in the immediate area and the relatively higher costs of hydro-electricity compared with electricity from thermal plants. The relatively inexpensive electricity from the thermal plants in the larger centers means that the hydro-electric power cannot be transmitted the long distances necessary and still be competitive.

Even though the local demand does not exist today, the water is available to satisfy power-hungry and water-hungry industries in the future.

At present, a study has been undertaken to determine the feasibility of constructing a thermal plant on the Athabasca River which would use coke from the Tar Sands project. Substantial quantities of electricity would be available for export to Edmonton and other areas.

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1/ Source (6)

2/ Source (20)

Table 4

## TOTAL FOREST RESOURCES IN CENSUS DIVISION 12

| PULPWOOD - CORDS (4" - 9" D.B.H.)* |                 |   |           |         |  |
|------------------------------------|-----------------|---|-----------|---------|--|
| Area<br>(Acres)                    | White<br>Spruce | Black<br>Spruce                         | Balsam    | Pine    | Total Cords<br>Coniferous      Poplar      |
| Alienated Land <sup>2/</sup>       | 1,958,700       | No Forest Inventory Estimates Made      |           |         |  |
| Indian Reserves                    | 323,800         | No Forest Inventory Estimates Available |           |         |  |
| Metis Colonies                     | 360,400         | 14,600                                  | 800       | 800     | 11,600      27,700      140,000            |
| Crown Land                         | 22,233,500      | 7,767,200                               | 5,797,700 | 706,800 | 14,277,900      28,549,700      19,719,050 |
| Wood Buffalo Park                  | 9,000,000       | 2,145,000                               | 1,155,000 | ---     | 4,000,000      7,300,000      1,700,000    |
| D.N.D. Air Weapons Range           | 1,295,300       | 463,400                                 | 215,100   | 41,600  | 611,100      1,331,200      881,700        |
| GRAND TOTAL                        | 35,171,700      | 10,390,200                              | 7,168,600 | 749,200 | 18,900,600      37,208,600      22,440,911 |

- 15 -

| SAWTIMBER - M-F.B.M.** (10" + D.B.H.) |   |         |           |  | Total M-F.B.M. |           |
|---------------------------------------|---|---------|-----------|--|----------------|-----------|
|                                       | White<br>Spruce                         | Balsam  | Pine      |  | Coniferous     | Poplar    |
| Alienated Land                        | No Forest Inventory Made                |         |           |  |                |           |
| Indian Reserves                       | No Forest Inventory Estimates Available |         |           |  |                |           |
| Metis Colonies                        | 7,500                                   | 300     | 4,300     |  | 12,100         | 57,100    |
| Crown Land                            | 4,637,800                               | 142,200 | 2,519,400 |  | 7,299,400      | 8,495,700 |
| Wood Buffalo Park                     | 1,967,900                               | ---     | ---       |  | 1,967,900      | 473,000   |
| D.N.D. Air Weapons Range              | 203,000                                 | 10,400  | 116,600   |  | 300,000        | 365,300   |
| GRAND TOTAL                           | 6,816,100                               | 152,900 | 2,640,300 |  | 9,609,300      | 9,392,100 |

Source: Forest Resources and Timber Production in C. D. 12.

\* "Diameter at Breast Height!" \*\* "1,000 Board Feet".

<sup>1/</sup> Acreage includes both Pulpwood and Sawtimber Stands.<sup>2/</sup> All patented lands and those which may become patented (i.e. agricultural & cultivation leases).



Table 5

## COMMERCIAL CATCH OF FISH IN LBS. - C. D. 12

|                      | <u>Tullibee</u> | <u>Perch</u> | <u>Pickarel</u> | <u>Pike</u> | <u>Trout</u> | <u>Whitefish</u> | <u>TOTAL</u> |
|----------------------|-----------------|--------------|-----------------|-------------|--------------|------------------|--------------|
| Lbs. Caught, 1961-62 | 1,099,300       | 21,500       | 210,900         | 422,500     | 44,300       | 1,015,700        | 3,000,400    |
| Per Cent by Weight   | 36.6%           | 0.7%         | 7.0%            | 14.1%       | 1.5%         | 33.9%            | 100.0%       |
| Lbs. Caught, 1965-66 | 1,612,843       | 636,377      | 322,386         | 702,917     | 3,593        | 651,896          | 4,075,400    |
| Per Cent By Weight   | 39.5%           | 15.5%        | 7.9%            | 17.1%       | 0.1%         | 16.0%            | 100.0%       |

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Source: Department of Lands and Forests, Fish and Wildlife Division.

## B. SECONDARY INDUSTRIES

Whereas primary industries are concerned with the first stage of production, secondary industries use resources in subsequent production processes. They broaden the economic base and provide more stability in terms of income and employment. The secondary industries in C. D. 12 are manufacturing and construction.

### Manufacturing

Relatively little manufacturing is carried on in C. D. 12.

Table 6  
MANUFACTURING STATISTICS  
C. D. 12 - 1958 to 1965

| <u>Year</u> | <u>No. of<br/>Establish-<br/>ments</u> | <u>People<br/>Employed</u> | <u>Wages &amp;<br/>Salaries</u> | <u>Cost of<br/>Materials</u> | <u>Gross<br/>Value of<br/>Production</u> | <u>Net<br/>Value of<br/>Production</u> |
|-------------|--|----------------------------|---------------------------------|------------------------------|--|--|
| 1956        | 24                                     | 140                        | \$360,000                       | 2,275,200                    | 2,826,000                                | 551,000                                |
| 1961        | 20*                                    | 87*                        | 208,000*                        | 1,749,000*                   | 2,165,000*                               | 383,000*                               |
| 1964        | 20                                     | 113                        | 277,000                         | 1,621,400                    | 2,225,000                                | 570,000                                |
| 1965        | 22                                     | 114                        | 280,000                         | 1,403,700                    | 2,050,000                                | 610,000                                |

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Source (2)

Table 6 indicates that the gross value of production decreased from \$2.8 million in 1956 to \$2.0 million in 1965. However, by 1961, two firms, employing about one third of the manufacturing labour force, had been reclassified. For this reason, only the period from 1961 to 1965 gives an indication of any trend. From 1961 - 1965, the gross value of production varied a maximum of 8% from the 1961 figure, rising to a maximum of \$2.2 million in 1964 and then decreasing to \$2.0 million in 1965. The net value of production (i.e. gross value of production minus the cost of materials, fuel and electricity) increased during the period 1961 - 1965.

A summary of the manufacturing trend from 1961 to 1965 is quite interesting. Gross output was practically static; the number of people employed increased; wages and salaries increased; the cost of materials decreased; and the net value

\* The sharp drop from 1956 to 1961 occurred because 2 firms were removed from manufacturing to another category. They accounted for a total of 52 em-





paid to farmers for agricultural products increased. This would appear to indicate that production is probably decreasing. However, some of the increasing net value may be due to increased efficiency or changes in product mix. In any case, the manufacturing industry in C. D. 12 does not appear to be flourishing.

Any new manufacturing establishments will likely be resource-based rather than market-based. That is, new industries would locate in the area to be close to their source of raw materials. Local demand, by itself, is not sufficient to support a manufacturing plant which requires a substantial capital investment. Any substantial increases in manufacturing output would probably develop around the forest and petroleum industries initially, and most of the output would be shipped to other areas.

There is also a possibility of attracting "footloose" manufacturing plants. These require few raw materials except labour, and the products are not expensive to ship to distant points. Attraction of these plants to a community depends to a large degree on the available labour supply, town facilities and the overall business and social climate.

Manufacturing output within the present firms will likely rise gradually, simply because of natural population increases. The Tar Sands project is an interesting question mark. If, as some people forecast, the population of Fort McMurray increases to between 5,000 and 15,000 people, then we could expect an immediate increase in output from new food and beverage plants and perhaps building block plants. Also, footloose industries are more attracted to centers which appear to have good growth prospects, and the assurance of adequate labour, services and facilities for future years. Of course, other increases in output could develop from plants using the crude oil or one of the by-products for their raw material.

#### CONSTRUCTION

No comprehensive figures for the total construction carried on in the area are available. However, the value of building permits can be used as a rough indicator of construction activity and Table 8, page 18, shows these values from 1957 to 1966. Note that these figures include only selected centers and consequently do not include rural construction. Table III, in the appendix,

gives the value of permits for each selected center from 1957 to 1965.

Though the value of building permits has fluctuated significantly from 1957 to 1965, a gradual upward trend in total activity is evident. Expenditures on residential construction have formed the largest and most stable segment of total expenditures for most of the years. Institutional and governmental construction has followed a very erratic path and, in general, no trend is evident, although over the period, the total value was second to residential construction. The value of commercial construction has shown a gradual rising trend and has become an increasingly important segment in the construction sector. Finally, industrial construction, like governmental, has shown an erratic pattern over the period and has provided the least activity; once again emphasizing the lack of industrial base in the area.

Table 8                      VALUE OF BUILDING PERMITS FOR SELECTED  
                                 TOWNS AND VILLAGES IN C. D. 12\*

| <u>Year</u> | <u>Residential</u>                   | <u>Industrial</u> | <u>Commercial</u> | <u>Institutional<br/>&amp; Government</u> | <u>TOTAL<br/>(\$000)</u> |
|-------------|--------------------------------------|-------------------|-------------------|---|--------------------------|
| 1957        | 668                                  | 52                | 82                | 774                                       | 1,570                    |
| 1958        | 594                                  | 270               | 176               | 1,151                                     | 2,190                    |
| 1959        | 969                                  | 64                | 256               | 834                                       | 1,550                    |
| 1960        | 638                                  | 96                | 195               | 391                                       | 1,620                    |
| 1961        | 1,100                                | 83                | 292               | 1,952                                     | 3,430                    |
| 1962        | 1,487                                | 27                | 875               | 438                                       | 2,927                    |
| 1963        | 1,687                                | 78                | 855               | 434                                       | 3,054                    |
| 1964        | 1,710                                | 200               | 1,514             | 812                                       | 4,236                    |
| 1965        | 1,267                                | 41                | 731               | 2,399                                     | 4,438                    |
| 1966        | Breakdown not available at printing. |                   |                   |   | 5,777                    |

\* 1957-1960 excludes three centres included from 1961-1965.

Grand Centre was included beginning in 1961. Fort McMurray and Glendon were included from 1964 on.

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Source: Table III, Appendix.

From 1964 to 1965, the influence of the Athabasca Tar Sands project can be seen. For example, in 1963 building permits in C. D. 12 amounted to \$3,054,000, while in 1964, building permits in Fort McMurray alone amounted to \$2,00,000. No building permits have been issued for the plant itself, so the value of construction for the area is grossly understated. Similarly, no building permits were issued for the pipeline construction or for road building through the area. A large portion of the building permits in 1964 were for commercial buildings such as stores, barber shops and other service outlets. This directly reflects the increased demands for goods and services produced by new employment at the project.

### C. TERTIARY INDUSTRIES

Tertiary industries refers to the non-goods producing sector of the economy. In general, any establishment performing a service is included in this category. This group develops from demands for goods and services made by those employed in the primary and secondary industries and relies mainly on income earned in the latter industries for continued employment.

#### Retail Trade

The following table supplies a summary of the growth of total retail sales for C. D. 12 and Alberta from 1958 to 1965.

Table 9                      RETAIL SALES IN C. D. 12 AND ALBERTA  
(1958 - 1965)

| <u>Year</u> | <u>Total Retail Sales</u> |                 | <u>Retail Sales Per Capita</u> |                |
|-------------|---------------------------|-----------------|--------------------------------|----------------|
|             | <u>C. D. 12</u>           | <u>Alberta</u>  | <u>C. D. 12</u>                | <u>Alberta</u> |
| 1958        | \$16,480,900              | \$1,152,246,400 | \$350.00                       | \$949.00       |
| 1961        | 21,740,900                | 1,283,384,500   | 460.00                         | 964.00         |
| 1964        | 31,295,000                | 1,507,590,000   | 611.00                         | 1,051.00       |
| 1965        | 36,680,000                | 1,688,508,000   | 697.00                         | 1,148.00       |

Source: (3)



In C. D. 12, from 1958 to 1965, total retail sales increased by 123% while the increase in total Alberta sales amounted to 46%. In the three year period from 1958 to 1961, retail sales in C. D. 12 increased by 32% or an average of 11% per year. In Alberta, retail sales in the former period increased by 12% or 4% per year, while in the latter period, the increase was 18% or 6% per year. Finally, between 1964 and 1965, retail sales increased in C. D. 12 by 17% and in Alberta by 12%.

Two points emerge from the above. Firstly, retail sales in C. D. 12 have been increasing twice as fast as in Alberta as a whole. Secondly, the growth of retail sales shows no signs of slackening in either C. D. 12 or Alberta.

Retail sales per capita reflect personal disposable income. As Table 9 indicates, C. D. 12 has shown a much more significant increase than Alberta. From 1958 to 1965, retail sales per capita rose by 95% in C. D. 12 compared with only 21% in Alberta for the same period. In 1958, sales per capita in C. D. 12 amounted to only 2/5 of the Alberta figure. However, by 1965, the C. D. 12 position had improved until their sales per capita were 3/5 of the Alberta sales per capita figure. Apparently the following conclusion can be drawn. While retail sales per capita are 40% lower in C. D. 12 than Alberta as a whole, the increases in per capita and total sales show that the area's position is improving relative to the province as a whole.

Figure 5 shows the 1965 breakdown of retail sales per capita by class of outlets. In all groups, retail sales per capita are lower in C. D. 12 than Alberta, reflecting the relatively lower income of the former area.

#### Wholesale Trade

Table 10 provides the wholesale trade statistics for C. D. 12 and Alberta for 1961. The agricultural base of the area is emphasized once again since about 70% of the per capita sales involved farm-use products.

Figure 6 shows a comparison of wholesale sales per capita for 1961. Note that in all cases, the C. D. 12 figures are lower than the Alberta figures. This, coupled with the lower retail sales per capita, implies that purchasing power is relatively restricted.

#### Service Trade

The service trade in C. D. 12 increased from \$2.1 million in 1956, to \$3.1

million in 1961, and to \$3.8 million in 1965, an increase of 80% during this period. The provincial increase from 1956-65 was 56%. Table 10 shows the composition of the service trade in C. D. 12 and Alberta for 1965.

The service sector has not developed very fully in C. D. 12, as Table 11 illustrates. This may be due, in part, to the scattered population and the lack of industrial activity. C. D. 12, with 3.6% of Alberta's population, contributed only 1.7% to the total service trade value in 1965. In all classes of service trade, except funeral services, the per capita spendings were from 1/3 to 1/2 less than the comparable Alberta figures. Most of the service trade in both Alberta and C. D. 12 is centered around the hotel, tourist and restaurant facilities. This portion of the service trade is relatively more important in C. D. 12, since 81% of the total service trade is in this category compared with 72% for Alberta as a whole.

#### Trade Summary

In all three classes of trade - retail, wholesale and service - per capita figures are much lower for C. D. 12 than for Alberta. However, in both the service and retail classes, sales per capita are increasing  $1\frac{1}{2}$  to 2 times as fast in C. D. 12 as in Alberta. Little can be said about the trend in wholesale sales because wholesale figures have been affected by major classification changes in past years. It appears that the standard of living (reflected by sales per capita) in C. D. 12, while below that of Alberta, is improving relative to Alberta as a whole.

#### Transportation and Communication

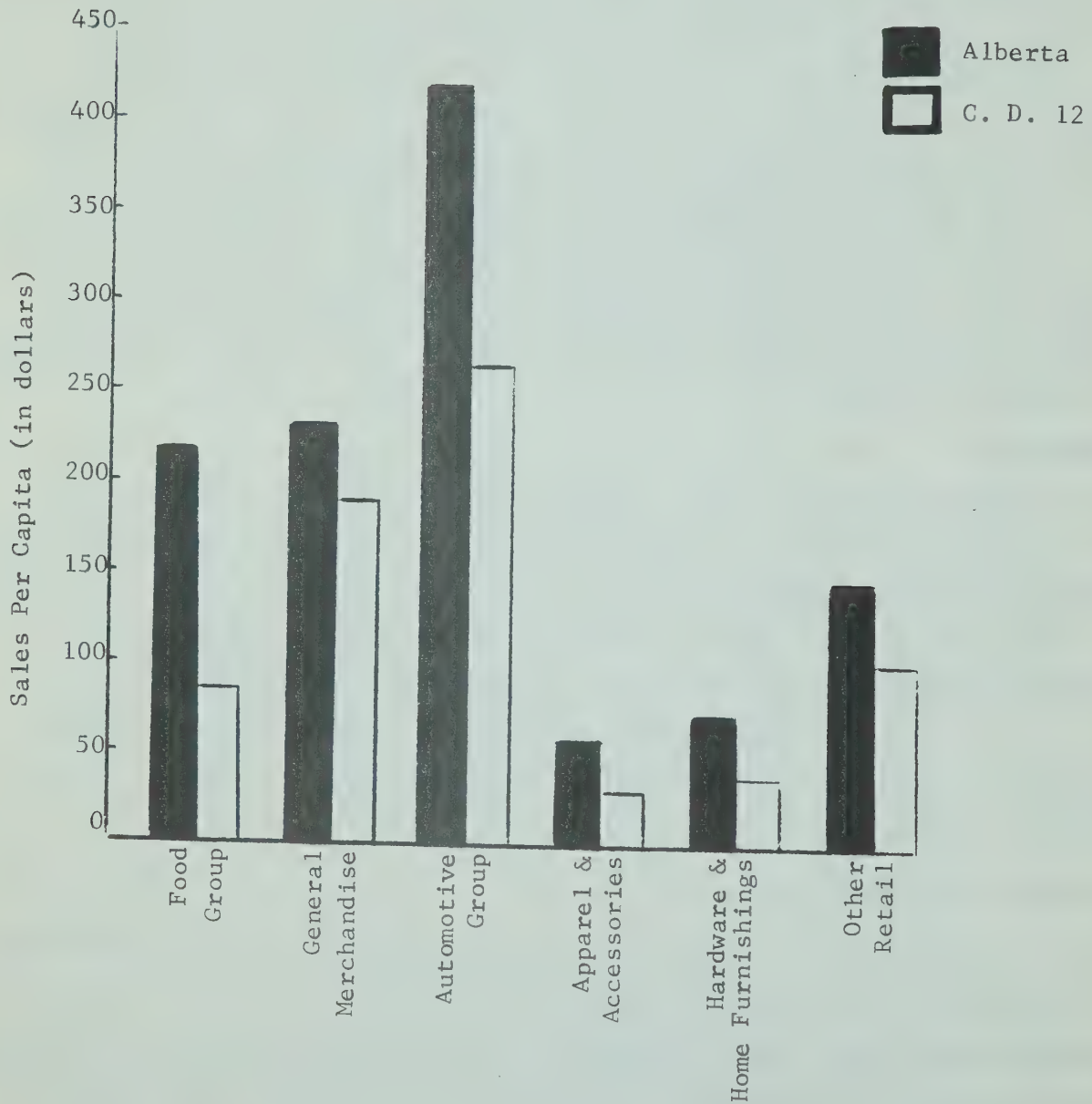
C. D. 12, south of Lac La Biche, is served by numerous transportation facilities: all-weather roads, rail lines and air lines.

North of Lac La Biche, most transportation is by air or rail as all-weather roads are practically non-existent. There are two rail lines: the Northern Alberta Railway to Fort McMurray by way of Lac La Biche and the C.N.R. connecting St. Paul, Bonnyville and Cold Lake with Edmonton.

An all-weather road joins McMurray to Highway 46, west of Lac La Biche. Waterways-Fort McMurray is the terminal for barge traffic via the Athabasca,

FIGURE 5

RETAIL SALES PER CAPITA BY TYPE OF OUTLET  
C. D. 12 and Alberta, 1965



Source: (3)



Table 10

WHOLESALE TRADE BY TYPE OF OUTLET  
C. D. 12 and Alberta, 1961

|   | No. of<br>Stores | C. D. 12     |                     | ALBERTA             |
|---|------------------|--------------|---------------------|---------------------|
|   |                  | Sales        | Sales Per<br>Capita | Sales Per<br>Capita |
| Machinery, equipment & supplies                           | 17               | \$ 1,449,900 | \$ 30.70            | \$ 220.10           |
| Farm products (raw materials)                             | 10               | 4,618,900    | 97.60               | 160.70              |
| Petroleum & Petroleum Products                            | 31               | 4,258,400    | 90.00               | 145.50              |
| Groceries and Food Specialties                            | 1*               | ..           | ..                  | 143.80              |
| Lumber and building materials                             | 16               | 1,610,100    | 34.00               | 100.80              |
| Food products (except groceries)<br>& tobacco             | 2*               | ..           | ..                  | 72.80               |
| Automotive  | 2*               | ..           | ..                  | 47.40               |
| Plumbing, refrigeration & heating<br>equipment & supplies | --               | --           | --                  | 32.10               |
| Electrical goods  | --               | --           | --                  | 31.10               |
| Hardware  | --               | --           | --                  | 29.20               |
| All other   | 6                | 204,500      | 4.30                | 104.70              |
| TOTAL   | 85               | \$13,551,300 | \$286.40            | \$1,089.20          |

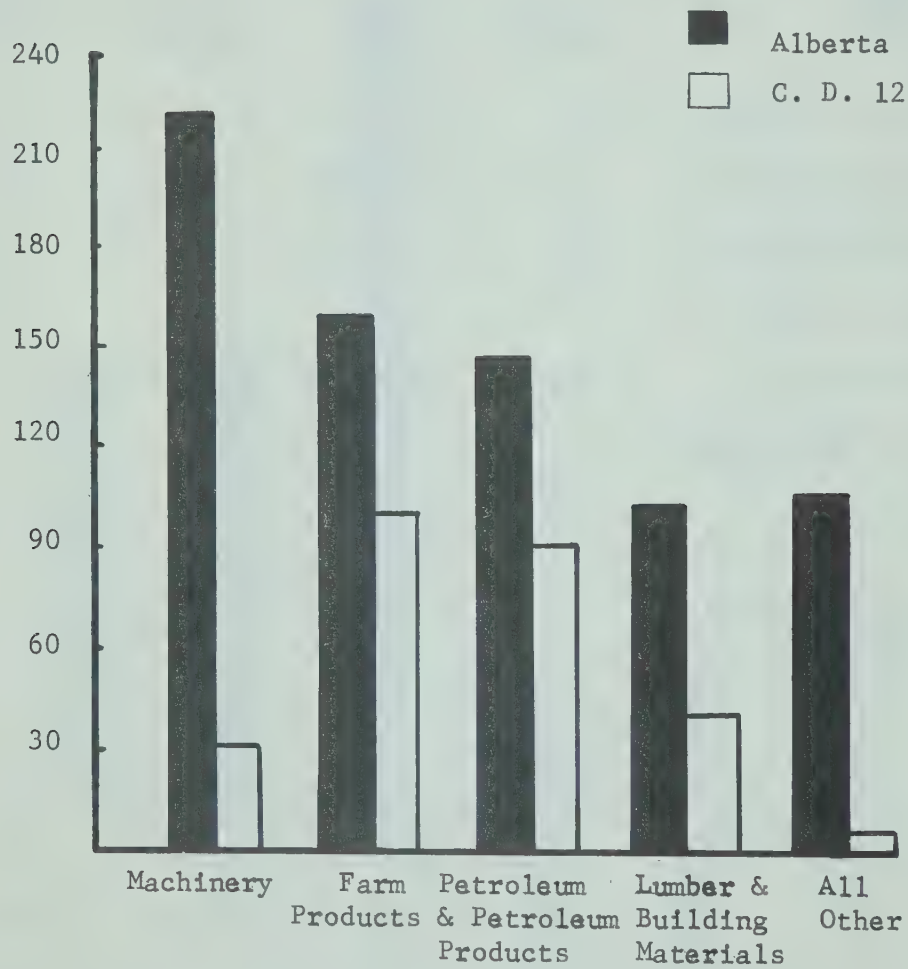
NOTE: .. Not Available

\* Sales are not given for these stores while they are included in the total sales and the sales per capita.

Source: (18)

Figure 6

WHOLESALE TRADE SALES PER CAPITA BY TYPE OF OUTLET  
Alberta and C. D. 12, 1961



Source: (9)

Table 11

SERVICE TRADE BY TYPE OF OUTLET, 1965  
C. D. 12 and Alberta

|                                       | C. D. 12                    |                             |                                  | ALBERTA                     |                             |                                  |
|---------------------------------------|-----------------------------|-----------------------------|----------------------------------|-----------------------------|-----------------------------|----------------------------------|
|                                       | <u>Total<br/>Sales (\$)</u> | <u>% of<br/>Total Sales</u> | <u>Per Capita<br/>Sales (\$)</u> | <u>Total<br/>Sales (\$)</u> | <u>% of<br/>Total Sales</u> | <u>Per Capita<br/>Sales (\$)</u> |
| Amusement & Recreation                | 174,000                     | 4.5%                        | 3.30                             | 7,998,000                   | 3.5%                        | 5.40                             |
| Business Service                      | ---                         | ---                         | ---                              | 2,433,000                   | 1.1%                        | 1.60                             |
| Personal Service                      | 411,000                     | 10.9%                       | 7.80                             | 33,556,000                  | 14.7%                       | 22.80                            |
| Repair Service                        | ---                         | ---                         | ---                              | 4,561,000                   | 2.0%                        | 3.10                             |
| Undertaking & Funeral                 | 113,000                     | 3.0%                        | 2.10                             | 3,954,000                   | 1.7%                        | 2.70                             |
| Photography                           | ---                         | ---                         | ---                              | 4,877,000                   | 2.1%                        | 3.30                             |
| Misc. Service                         | ---                         | ---                         | ---                              | 7,109,000                   | 3.1%                        | 4.80                             |
| Hotel, Tourist Camp<br>and Restaurant | 3,098,000                   | 80.5%                       | 58.90                            | <u>164,251,000</u>          | <u>71.8%</u>                | <u>111.70</u>                    |
| Total                                 | 3,844,000*                  | 100.0%*                     | 74.00*                           | 228,739,000                 | 100.0%                      | 155.90                           |

\* The column sums do not agree with the total figures because sales in some categories have been omitted to ensure that the sales of individual firms cannot be determined.

Source: (3)

Slave and Mackenzie Rivers to the Mackenzie district, Port Radium on Great Bear Lake and Aklavik near the mouth of the Mackenzie River. At present, there are approximately four boats and thirty-seven barges operating commercially on the River System.

With the exception of Fort McMurray, buses serve all the towns and villages in C. D. 12.

Bonnyville, Cold Lake, Grand Centre, Lac La Biche, McMurray, St. Paul, Elk Point, Glendon, Smoky Lake, Vilna, Warspite, and Waskatenau are served by direct dial stations by A.G.T. With the exception of McMurray, all rural areas surrounding the above mentioned towns and villages are served by A.G.T. or by Mutual Exchanges.



## II. LABOUR FORCE

Figure 7 points out the dependence of the region on agriculture, since 46% of the labour force is employed in this industry. The Cold Lake Air Base is another significant influence in the area considering that income earned there is spent in the surrounding communities. The figure on the following page shows the percentage of the labour force employed in each industrial division in C. D. 12.

Table 12 shows employment by type of industry for C. D. 12 in 1961.

Table 12 EMPLOYMENT IN PRIMARY, SECONDARY & TERTIARY INDUSTRIES  
C. D. 12 - 1961

| <u>Major Industrial Classification</u> | <u>Industry Division</u>           | <u>% of Labour Force</u> | <u>Value of 1961 Production</u> |
|--|------------------------------------|--------------------------|---------------------------------|
| PRIMARY INDUSTRY                       | Agriculture                        | 46.3                     | 12,164,000                      |
|  | Fishing                            | 1.7                      | 260,000                         |
|  | Forestry                           | 1.0                      | 451,000                         |
|  | Mines, Quarries and Oil            | 0.7                      | 1,380,000                       |
|  | % Employed in Primary Industry     | 49.7                     |                                 |
| SECONDARY INDUSTRY                     | Manufacturing                      | 1.9                      | 2,400,000                       |
|  | Construction                       | 3.1                      | 3,390,000*                      |
| % Employed in Secondary Industry       |                                    | 5.0                      |                                 |
|  |                                    |                          |                                 |
| TERTIARY INDUSTRY                      | Public Adminsitration and Defense  | 15.4                     |                                 |
|  | Services                           | 12.8                     | 3,308,000                       |
|  | Transportation                     |                          |                                 |
|  | Communication and Utilities        | 6.5                      |                                 |
|  | Trade                              | 7.0                      |                                 |
|  | Finance, Insurance and Real Estate | 0.8                      |                                 |
|  | % Employed in Tertiary Industry    | 42.5**                   |                                 |
|  |                                    |                          |                                 |

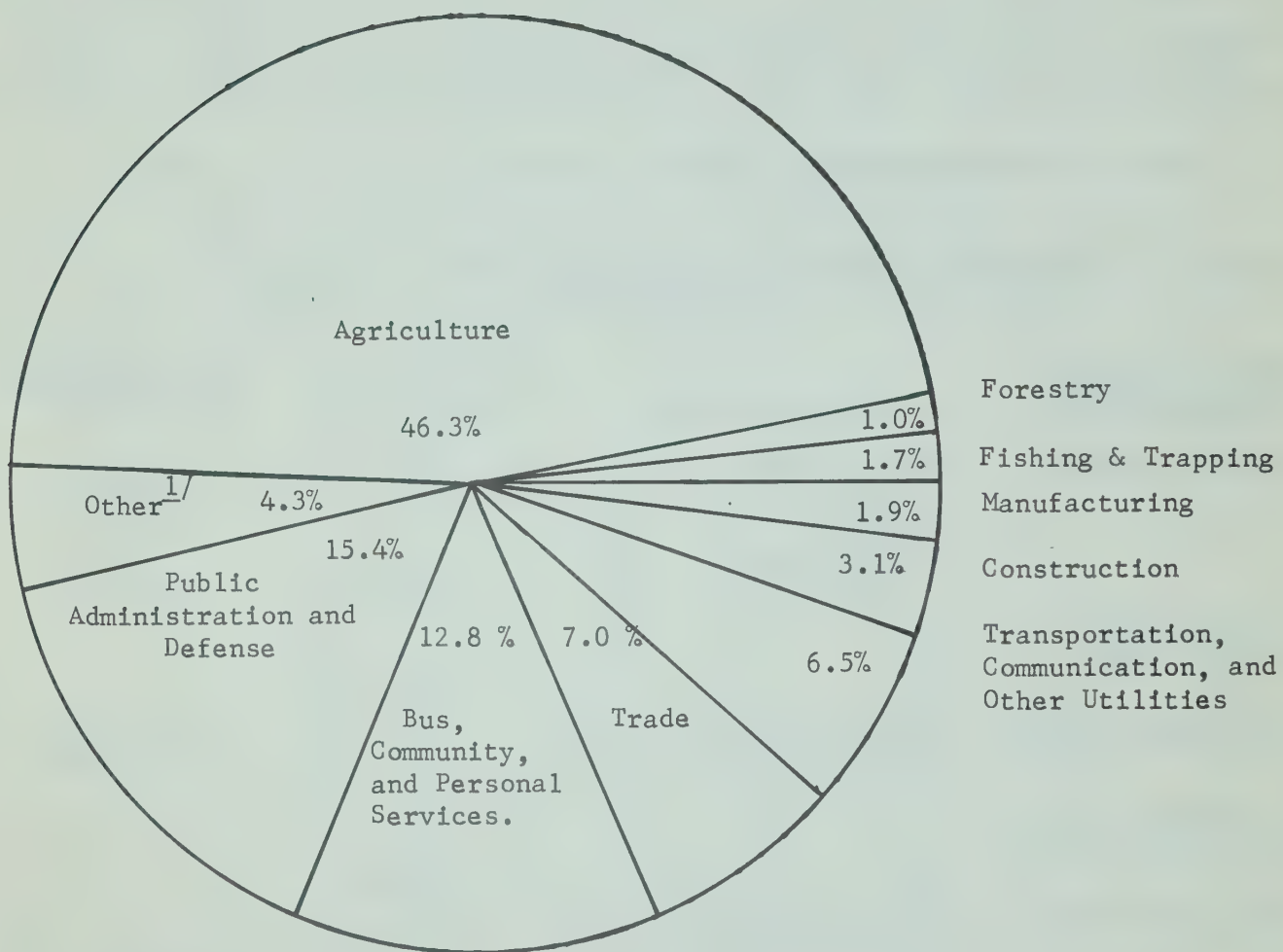
\* Building Permits.

\*\* Does not add to 100% since the "All Other" category (2.8%) was omitted.

Source: (9)

Figure 7

LABOUR FORCE EMPLOYED BY OCCUPATIONS  
Census Division 12 - 1960



1/ Other includes: Those not reporting industry....2.8%  
Finance, Insurance, Real Estate.0.8%  
Mines, Quarries, Oil.....0.7%

Source: Table D.

No doubt the proportion of people employed in construction and mining has increased somewhat since 1961 with the influence of the Tar Sands project. The percentage of the labour force employed in other industries can be expected to increase gradually as retail, wholesale, and service establishments open up to satisfy the increased demands resulting from income generated by this project. On the other hand, the proportion employed in agriculture has probably decreased somewhat from 1961-1966.<sup>1/</sup>

Table 12 shows that 50% of the labour force was employed by primary industry in 1961. Secondary industry, which usually provides economic stability to an area, employed only 5% of the labour force in 1961 -1.9% in manufacturing and 3.1% in construction.

In 1964, 15 out of 20 manufacturing establishments produced goods which depended on agricultural output for raw materials.

Tertiary industry develops from demands for goods and services by those employed in the basic industries. There is thus a direct relationship between income earned in the primary and secondary industries and employment in the tertiary sector. For example, if farm income increases in a given year, perhaps because of a good wheat crop, farmers purchase more goods and services, and employment in the tertiary industry is encouraged.

The foregoing emphasizes the dependence on agriculture in C. D. 12 for employment and income. Firstly, agriculture employs the most people and produces the greatest value of output. Secondly, most of the manufacturing establishments depend on agricultural products for their inputs. Thirdly, the tertiary industries depend on income generated in the primary and secondary industry sectors for revenue. Consequently, their employment is tied to the prevailing agricultural income, both directly and indirectly. Since agricultural income is prone to weather and cyclical influences, employment and income in most of the other industries (i.e. secondary and tertiary) are subject to these same fluctuations.

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<sup>1/</sup> According to 1966 Census of Agriculture, the number of census farms decreased 8.0%. No figures were available on the change in number of farm operators or workers.

#### A. NON-FARM INCOME

Data from the 1961 census indicates that non-farm income in C. D. 12 was substantially below the provincial average. The statistics are summarized in the following table.

Table 13    AVERAGE NON-FARM INCOME\* FOR PEOPLE IN AND NOT IN FAMILIES  
                  Alberta & C. D. 12 - 1961

|                      | <u>ALBERTA</u> | <u>C. D. 12</u> |
|----------------------|----------------|-----------------|
| In Families.....     | \$5,606        | \$3,742         |
| Not In Families..... | \$2,286        | \$1,442         |

---

Source:    Table E, Table F

C. D. 12 has the lowest average non-farm income per family of any Census Division in Alberta. The provincial average is \$5,606, while C. D. 12's is only \$3,742.

In general, most publications on distressed areas designate \$3,000 per family as the minimum income requirement for the basic necessities of life. From figure 8, we can see that 43% of the non-farm families in C. D. 12 earn less than \$3,000. In otherwords, over 2/5 of the non-farm families in C. D. 12 would be classed as financially-distressed under this definition. (See Figure 8, Page 32.)

Perhaps the most significant point concerning the distribution of income in C. D. 12 is that 17% of the families earned less than \$1,000 in 1961. In Alberta, in 1961, only 5% earned less than this figure.

Even in the higher income brackets, large disparities exist between Alberta and C. D. 12. In all income groups over \$5,000, the percentage of families in each group in C. D. 12 is from 30% to 90% less than the percentage of families in the same income groups for Alberta. Only in two middle income ranges (3,000-3,999 and 4,000-4,999) are the proportions of families in each group approximately the same for both C. D. 12 and Alberta.

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\* Income includes wages, salaries, pensions, welfare, government transfer payments, interest, dividends, etc.



Figure 9

INCOME OF PEOPLE IN FAMILIES BY INCOME GROUPS  
Alberta and C. D. 12, 1961

NON-FARM

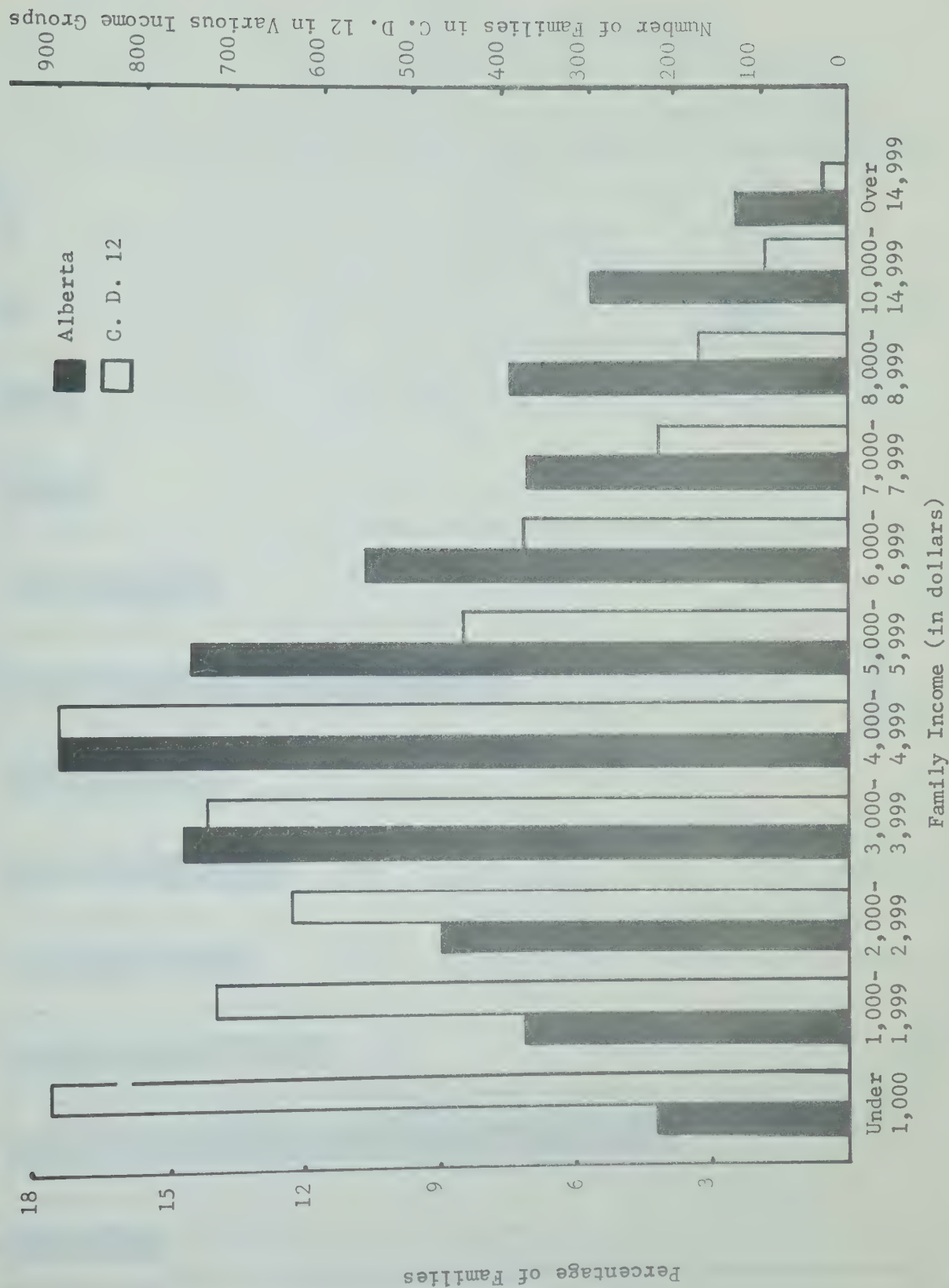
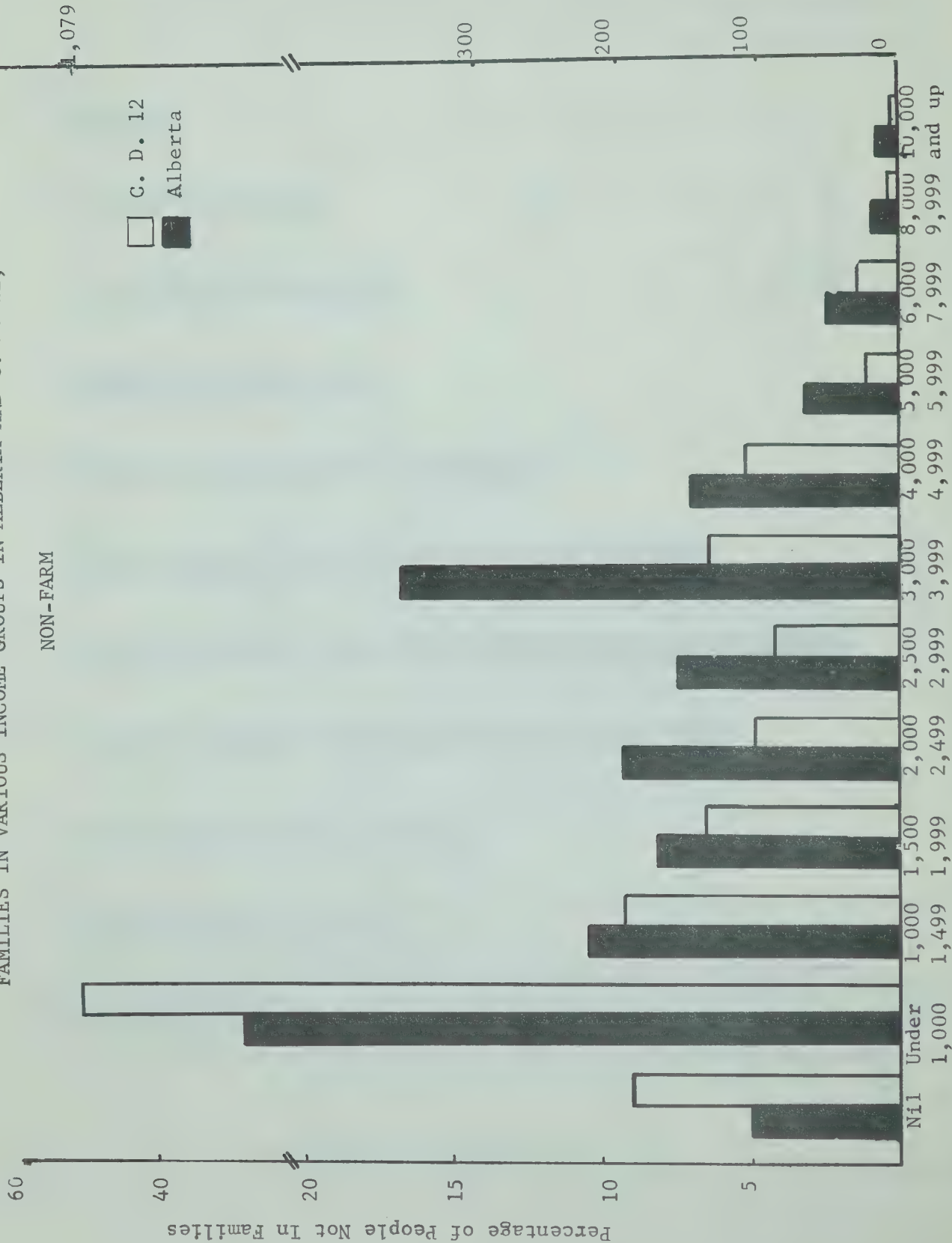


Figure 9

A PERCENTAGE COMPARISON OF THE NUMBER OF PEOPLE NOT IN FAMILIES IN VARIOUS INCOME GROUPS IN ALBERTA AND C. D. 12, 1961



Source: Table F

Income of People Not In Families

Figure 10 shows that a similar income pattern exists for C. D. 12 non-farm residents who are not in families.<sup>1/</sup> The Alberta average annual income for people not in families amounts to \$2,286 while in C. D. 12, this figure is only \$1,442. C. D. 12 has the lowest average income for a person not in a family of any Census Division in Alberta. Of the people not in families in C. D. 12, 85% earn under \$3,000 annually; however, Alberta has only 69% in this group. (See Figure 9, Page 34.) A total of 60% of the people, not in families, earned less than \$1,000 in 1961, compared with only 33% in Alberta. The proportion of people in all other income groups in C. D. 12 was less than respective proportions for Alberta as a whole.

#### B. FARM INCOME

Farm income is dealt with in detail in the publication Agriculture, C. D. No. 12, so only a summary need be given here.

Table 14 provides the significant data.

Although the average income per farmer was \$3,152, 57% of the farmers earned less than \$3,000 annually in 1961. This compares with 43% of the non-farm families which earn less than \$3,000 per year.

Table 14 TOTAL GROSS INCOME OF FARMERS IN C. D. 12<sup>2/</sup> - 1961

| Income Range   | 0-999 | 1,000-<br>1,999 | 2,000-<br>2,999 | 3,000-<br>3,999 | 4,000-<br>4,999 | 5,000-<br>6,999 | 7,000-<br>9,999 | 10,000<br>and up |
|----------------|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| No. of Farmers | 172   | 849             | 944             | 693             | 499             | 440             | 186             | 101              |
| Per Cent       | 17.2% | 19.0%           | 21.1%           | 15.5%           | 11.1%           | 9.8%            | 4.1%            | 2.2%             |

Source: Table 8, Agriculture C. D. 12.

In Alberta, the average gross income for farmers was \$6,456<sup>3/</sup>, which is twice as much as the average gross income in C. D. 12.

<sup>1/</sup> Persons living alone, living with unrelated individuals (boarders), or living with relatives but not in husband-wife or parent-child relationship.

<sup>2/</sup> Includes income earned on farm and off-farm of those classed as farmers.

<sup>3/</sup> Source: (3).

C. INCOME SUMMARY

Table 15 summarizes the income earned by all individuals, both farm and non-farm, in C. D. 12.

Note that from 1957 to 1964, the total number of individuals with taxable income increased from 3,462 to 5,062, or 46%. During the same period, the number of individuals with non-taxable income increased slightly from 3,400 to 3,590 or 6%. Furthermore, average income in both categories increased. The non-taxable group had the largest relative increase in income from \$1,250 per year to \$2,580. Apparently, even the low income group has been able to improve their standard of living to some degree.

Table 15            INDIVIDUAL INCOME AND INCOME TAX STATISTICS  
                    Census Division 12 - 1957, 1961 and 1964

|                               | <u>1957</u>  | <u>1961</u>  | <u>1964</u>  |
|-------------------------------|--------------|--------------|--------------|
| <u>TAXABLE</u>                |              |              |              |
| Number of Returns             | 3,462        | 3,860        | 5,062        |
| Wages and Salaries            | \$ 8,186,000 | \$11,139,000 | \$17,314,000 |
| Total Income                  | 10,313,000   | 13,271,000   | 19,282,000   |
| Tax Payable                   | 675,000      | 1,066,000    | 1,738,000    |
| Average Taxable<br>Income     | 2,980        | 3,440        | 3,780        |
| <u>NON-TAXABLE</u>            |              |              |              |
| Number of Returns             | 3,400        | 3,480        | 3,590        |
| Wages and Salaries            | 2,236,000    | 2,339,000    | 2,774,000    |
| Total Income                  | 4,238,000    | 5,051,000    | 4,719,000    |
| Average Non-Taxable<br>Income | 1,250        | 1,800        | 2,580        |

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Source: Department of National Revenue, Taxation Statistics.



#### IV. FINANCIAL ASSISTANCE

Financial assistance to Alberta industries is available under certain conditions from both the Federal and Provincial Governments. The Area Development Incentives Act,<sup>1/</sup> a measure initiated by the Federal Government, is designed to encourage the establishment of manufacturing and processing operations in a given area. At the present time, C. D. 12 is eligible for assistance provided under the act. Assistance is provided in the form of a grant or a claim for deductions on income tax, or accelerated depreciation write-offs. Further information on available assistance can be obtained from the Regional Resource Co-ordinator in St. Paul.

Provincially, assistance is available from the Industrial Development Branch.<sup>2/</sup> The provincial government has a number of projects aimed at improving the business community. These range from market research and publishing of statistical data to direct financial aid given through the Alberta Commercial Corporation.<sup>3/</sup>

The Alberta Commercial Corporation is a Crown Corporation established under the Alberta Commercial Services Act to provide financial assistance in various forms to Alberta industries that are unable to obtain suitable financing through other sources. The type of assistance available can be adjusted to suit needs of an individual company and includes, but is not limited to, the financing of production equipment and facilities and/or the stockpiling of inventories of either raw materials or manufactured goods.

Credit is available from numerous other agencies as well. In the Agricultural Sector, credit may be obtained from the Farm Credit Corporation,<sup>4/</sup> the Alberta Farm Credit Purchase Board,<sup>5/</sup> the Veterans Land Act Agency,<sup>6/</sup> or other

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1/ Area Development Agency, Department of Industry, Ottawa, Ontario.

2/ Industrial Development Branch, Department of Industry, Edmonton, Alberta.

3/ Alberta Commercial Corporation, Department of Industry, Edmonton, Alberta.

4/ Farm Credit Corporation, 100St. and 101 A Ave., Edmonton, Alberta.

5/ Alberta Farm Purchase Board, Department of Agriculture, Legislative Building, Edmonton, Alberta.

6/ Veteran's Land Act Administration, 9820-107 St., Edmonton, Alberta.

smaller agencies. Other assistance, at interest rates varying from 6% to 20% may be obtained from the Industrial Banks, Treasury Branches, Chartered Banks and other lending institutions.

APPENDIX

Table A

VALUE OF PRIMARY PRODUCTION  
in Alberta and C. D. 12 - 1961

|                           | <u>Alberta</u>       | <u>C. D. 12</u>     | <u>C. D. 12<br/>as a % of<br/>Alberta</u> | <u>Each Component<br/>as % of C. D. 12<br/>Total</u> |
|---------------------------|----------------------|---------------------|---|--|
| Agriculture <sup>1/</sup> | \$439,073,060        | \$12,163,950        | 2.8                                       | 85.3   |
| Minerals <sup>2/</sup>    | 473,480,540          | 1,380,000           | 0.3                                       | 9.7  |
| Forestry <sup>3/</sup>    | 22,190,000           | 451,100             | 2.0                                       | 3.2  |
| Fishing <sup>4/</sup>     | 1,416,378            | 260,947             | 18.4                                      | 1.8  |
|                           | <u>\$936,159,978</u> | <u>\$14,255,997</u> | <u>1.5</u>                                | <u>100.0</u>   |

1/ Source (6)

2/ Source (15)

3/ Source (3)

4/ Source (10)



TABLE B FOREST RESOURCES SUMMARY OF CENSUS DIVISION 12, BY ZONES  
(UPDATED TO 1965)

| Land Classification                      | Area<br>Acres<br>(1000) | Pulpwood - Cords (4" - 9" DBH) |                     |  | Sawtimber - FBM (10" + DBH) |                                      |        |
|--|-------------------------|--------------------------------|---------------------|--|-----------------------------|--------------------------------------|--------|
|  |                         | White<br>Spruce                | Black<br>Spruce     | Total Cords-<br>Balsam Pine Coniferous | White<br>Spruce             | Total FBM-<br>Balsam Pine Coniferous | FBM    |
|  |                         | -----'000-----                 |                     |  | -----'000,000-----          |                                      |        |
|  |                         | <u>Green Zone</u>              |                     |  |                             |                                      |        |
| Alienated Land                           | 36                      | No Forest Inventory            | Estimates Made      | .....                                  | .....                       | .....                                | .....  |
| Indian Reserves                          | 113                     | No Forest Inventory            | Estimates Available | .....                                  | .....                       | .....                                | .....  |
| Crown Land-Inside Units                  | 20,070                  | 7,237                          | 5,732               | 677                                    | 14,144                      | 27,791                               | 17,207 |
| Crown Land-Outside Units                 | 479                     | 314                            | 42                  | 19                                     | 71                          | 447                                  | 1,117  |
| Wood Buffalo Park                        | 9,000                   | 2,145                          | 1,155               | ---                                    | 4,000                       | 7,300                                | 1,700  |
| D.N.D. Air Weapons Range                 | 1,295                   | 463                            | 215                 | 12                                     | 611                         | 1,331                                | 882    |
| TOTAL                                    | 30,993                  | 10,159                         | 7,144               | 738                                    | 18,826                      | 36,869                               | 20,906 |
|  |                         | <u>Yellow Zone</u>             |                     |  |                             |                                      |        |
| Alienated Land                           | 852                     | No Forest Inventory            | Estimates Made      | .....                                  | .....                       | .....                                | .....  |
| Indian Reserves                          | 74                      | No Forest Inventory            | Estimates Available | .....                                  | .....                       | .....                                | .....  |
| Metis Colony (M-7)                       | 200                     | 9                              | **                  | *                                      | 7                           | 17                                   | 58     |
| Crown Land                               | 1,235                   | 206                            | 23                  | 10                                     | 60                          | 300                                  | 1,363  |
| TOTAL                                    | 2,361                   | 215                            | 24                  | 11                                     | 67                          | 317                                  | 1,421  |
|  |                         | <u>White Zone</u>              |                     |  |                             |                                      |        |
| Alienated Land                           | 1,070                   | No Forest Inventory            | Estimates Made      | .....                                  | .....                       | .....                                | .....  |
| Indian Reserves                          | 137                     | No Forest Inventory            | Estimates Available | .....                                  | .....                       | .....                                | .....  |
| Metis Colony (M-10)                      | 160                     | 5                              | *                   | **                                     | 5                           | 11                                   | 82     |
| Crown Land-Within Forest Inventory Area  | 146                     | 10                             | ---                 | *                                      | 2                           | 12                                   | 32     |
| Crown Land-Outside Forest Inventory Area | 303                     | No Forest Inventory            | Estimates Made      | .....                                  | .....                       | .....                                | .....  |
| TOTAL                                    | 1,817                   | 15                             | *                   | 1                                      | 7                           | 23                                   | 114    |

\*\* 500 - 1,000 Acres.  
\* Less than 500 Acres.

(Cont'd)

| Land Classification   | Area<br>Acres<br>(1000) | Pulpwood - Cords (4" - 9" DBH)               |                 |                                 | Sawtimber - FBM (10" + DBH) |             |                                 |
|---|-------------------------|--|-----------------|---------------------------------|-----------------------------|-------------|---------------------------------|
|   |                         | White<br>Spruce                              | Black<br>Spruce | Total Cords-<br>Pine Coniferous | White<br>Spruce             | Balsam Pine | Total FBM-<br>Coniferous Poplar |
|   |                         |  |                 |                                 |                             |             |                                 |
| <u>Total Area - Census Division 12</u>                                |                         |  |                 |                                 |                             |             |                                 |
| Alienated Land<br>Indian Reserves<br>Metis Colonies (M-7 and<br>M-10) | 1,959                   | No Forest Inventory Estimates Made.....      |                 |                                 |                             |             |                                 |
|   | 324                     | No Forest Inventory Estimates Available..... |                 |                                 |                             |             |                                 |
|   | 360                     | 15   | **              | **                              | 12                          | 28          | 140                             |
|   | 22,234                  | 7,767  | 5,798           | 707                             | 14,278                      | 28,550      | 19,719                          |
|   | 9,000                   | 2,145  | 1,155           | ---                             | 4,000                       | 7,300       | 1,700                           |
| Wood Buffalo Park<br>D.N.D. Air Weapons Range                         | 1,295                   | 463  | 215             | 42                              | 611                         | 1,331       | 882                             |
|   | 35,172                  | 10,390                                       | 7,168           | 749                             | 18,901                      | 37,209      | 22,441                          |
| GRAND TOTAL   |                         | 6,817  | 152             | 2,640                           | 9,609                       | 9,392       |                                 |

\*\* 500 - 1,000 Acres.

\* Less than 500 Acres.

Source: (4)

Table C

VALUE AND TYPE OF BUILDING PERMITS ISSUED  
BY SELECTED CENTRES IN CENSUS DIVISION 12, 1956 - 1965

|                     | <u>Total<br/>Residential</u>      | <u>Industrial</u> | <u>Commercial</u> | <u>Institutional<br/>&amp; Government</u> | <u>Other</u> | <u>Total</u> |
|---------------------|-----------------------------------|-------------------|-------------------|---|--------------|--------------|
|                     | - - - - - \$'000 - - - - -        |                   |                   |   |              |              |
| <u>Bonnyville</u>   |                                   |                   |                   |   |              |              |
| 1956                | 21                                | 23                | 23                | ---                                       | ---          | 67           |
| 1957                | 78                                | ---               | ---               | 25  | ---          | 103          |
| 1958                | 45                                | 3                 | 31                | 107                                       | ---          | 186          |
| 1959                | 295                               | 26                | 91                | 477                                       | ---          | 889          |
| 1960                | 127                               | 63                | 39                | 92  | ---          | 321          |
| 1961                | 133                               | 4                 | 90                | 358                                       | ---          | 585          |
| 1962                | 305                               | 4                 | 137               | 3   | ***          | 549          |
| 1963                | 404                               | 1                 | 70                | 25  | ***          | 500          |
| 1964                | 164                               | ---               | 40                | 110                                       | ***          | 314          |
| 1965                | 73                                | 24                | 31                | 441                                       | ***          | 569          |
| <u>Cold Lake</u>    |                                   |                   |                   |   |              |              |
| 1956                | - - - - - not in survey - - - - - |                   |                   |   |              |              |
| 1957                | 49                                | ---               | 6                 | 468                                       | ---          | 523          |
| 1958                | 63                                | ---               | 5                 | 2   | ---          | 70           |
| 1959                | 109                               | ---               | 7                 | 88  | 3            | 207          |
| 1960                | 70                                | 16                | 37                | 5   | ---          | 128          |
| 1961                | 159                               | ---               | 18                | 74  | ---          | 251          |
| 1962                | 290                               | ---               | 35                | 102                                       | ***          | 427          |
| 1963                | 174                               | 18                | 28                | ---                                       | ***          | 220          |
| 1964                | 34                                | 46                | ---               | 20  | ***          | 100          |
| 1965                | 28                                | ---               | 10                | 5   | ***          | 43           |
| <u>Lac La Biche</u> |                                   |                   |                   |   |              |              |
| 1956                | 22                                | 5                 | 8                 | 170                                       | ---          | 205          |
| 1957                | 213                               | 1                 | 2                 | 172                                       | ---          | 388          |
| 1958                | 50                                | 64                | 74                | 44  | ---          | 232          |
| 1959                | 50                                | 2                 | 25                | 56  | 3            | 136          |
| 1960                | 52                                | 3                 | 11                | 29  | ---          | 95           |
| 1961                | 148                               | ---               | 89                | 455                                       | ---          | 692          |
| 1962                | 150                               | ---               | 106               | 160                                       | ***          | 416          |

Table C (Cont'd)

|                   |     |                                   |     |       |     |       |
|-------------------|-----|-----------------------------------|-----|-------|-----|-------|
| 1963              | 160 | 30                                | 180 | 175   | *** | 545   |
| 1964              | 128 | ---                               | 46  | 221   | *** | 395   |
| 1965              | 173 | ---                               | 94  | 88    | *** | 355   |
| <u>St. Paul</u>   |     |                                   |     |       |     |       |
| 1956              | 127 | 3                                 | --- | 279   | --- | 409   |
| 1957              | 211 | 46                                | 70  | 100   | 1   | 428   |
| 1958              | 300 | 203                               | 53  | 980   | 2   | 1,538 |
| 1959              | 398 | 6                                 | 125 | 195   | 3   | 727   |
| 1960              | 304 | 14                                | 70  | 48    | 4   | 440   |
| 1961              | 347 | 15                                | 29  | 1,037 | 3   | 1,431 |
| 1962              | 443 | 23                                | 500 | 53    | *** | 1,019 |
| 1963              | 670 | 22                                | 374 | 226   | *** | 1,292 |
| 1964              | 412 | 54                                | 211 | 260   | *** | 937   |
| 1965              | 340 | ---                               | 130 | 300   | *** | 770   |
| <u>Elk Point</u>  |     |                                   |     |       |     |       |
| 1956              |     | - - - - - not in survey - - - - - |     |       |     |       |
| 1957              | 48  | 1                                 | 4   | 9     | --- | 62    |
| 1958              | 36  | ---                               | 13  | ---   | --- | 49    |
| 1959              | 69  | 25                                | 8   | ---   | --- | 102   |
| 1960              | 12  | ---                               | 10  | 191   | --- | 213   |
| 1961              | 41  | ---                               | 21  | ---   | --- | 62    |
| 1962              | 54  | ---                               | 12  | 46    | *** | 112   |
| 1963              | 73  | 2                                 | 22  | ---   | *** | 97    |
| 1964              | 28  | 23                                | 1   | ---   | *** | 52    |
| 1965              | 66  | ---                               | 4   | ---   | *** | 70    |
| <u>Smoky Lake</u> |     |                                   |     |       |     |       |
| 1956              |     | - - - - - not in survey - - - - - |     |       |     |       |
| 1957              | 46  | 4                                 | --- | ---   | --- | 50    |
| 1958              | 45  | ---                               | --- | 18    | --- | 63    |
| 1959              | 21  | 5                                 | --- | 18    | --- | 44    |
| 1960              | 30  | ---                               | 23  | 26    | --- | 79    |
| 1961              | 77  | ---                               | --- | 24    | --- | 101   |
| 1962              | 70  | ---                               | 35  | 32    | *** | 137   |
| 1963              | 67  | ---                               | 14  | ---   | *** | 81    |
| 1964              | 108 | 2                                 | 4   | 60    | *** | 174   |



Table C (Cont'd)

|                      |     |                                   |     |     |     |     |
|----------------------|-----|-----------------------------------|-----|-----|-----|-----|
| 1965                 | 55  | 3                                 | 10  | --- | *** | 68  |
| <u>Vilna</u>         |     |                                   |     |     |     |     |
| 1956                 |     | - - - - - not in survey - - - - - |     |     |     |     |
| 1957                 | 4   | ---                               | --- | --- | --- | 4   |
| 1958                 | 21  | ---                               | --- | --- | --- | 21  |
| 1959                 | 25  | ---                               | --- | --- | --- | 25  |
| 1960                 | 33  | ---                               | 5   | --- | --- | 38  |
| 1961                 | 50  | ---                               | --- | --- | --- | 50  |
| 1962                 | 6   | ---                               | --- | --- | *** | 6   |
| 1963                 | 15  | ---                               | --- | --- | *** | 15  |
| 1964                 | 50  | ---                               | 2   | --- | *** | 52  |
| 1965                 | 3   | ---                               | --- | --- | *** | 3   |
| <u>Waskatenau</u>    |     |                                   |     |     |     |     |
| 1956                 |     | - - - - - not in survey - - - - - |     |     |     |     |
| 1957                 | 19  | ---                               | --- | --- | --- | 19  |
| 1958                 | 34  | ---                               | --- | --- | --- | 34  |
| 1959                 | 2   | ---                               | --- | --- | --- | 2   |
| 1960                 | 10  | ---                               | --- | --- | --- | 10  |
| 1961                 | 81  | ---                               | 41  | --- | --- | 122 |
| 1962                 | --- | ---                               | --- | --- | *** | --- |
| 1963                 | 20  | ---                               | 1   | --- | *** | 21  |
| 1964                 | 1   | ---                               | --- | --- | *** | 1   |
| 1965                 | --- | 3                                 | 2   | --- | *** | 5   |
| <u>Grand Centre</u>  |     |                                   |     |     |     |     |
| 1961                 | 64  | 64                                | 4   | 4   | --- | 136 |
| 1962                 | 169 | ---                               | 50  | 42  | *** | 261 |
| 1963                 | 104 | 5                                 | 166 | 8   | *** | 283 |
| 1964                 | 100 | 7                                 | 52  | --- | *** | 159 |
| 1965                 | 68  | 1                                 | 118 | --- | *** | 187 |
| <u>Fort McMurray</u> |     |                                   |     |     |     |     |
| 1961                 | n/a | n/a                               | n/a | n/a | n/a | n/a |
| 1962                 | n/a | n/a                               | n/a | n/a | *** | n/a |

Table C (Cont'd)

- 46 -

|                |     |     |       |       |     |       |
|----------------|-----|-----|-------|-------|-----|-------|
| 1963           | n/a | n/a | n/a   | n/a   | *** | n/a   |
| 1964           | 666 | 68  | 1,158 | 141   | *** | 2,033 |
| 1965           | 461 | --- | 332   | 1,565 | *** | 2,358 |
| <u>Glendon</u> |     |     |       |       |     |       |
| 1961           | n/a | n/a | n/a   | n/a   | n/a | n/a   |
| 1962           | n/a | n/a | n/a   | n/a   | *** | n/a   |
| 1963           | n/a | n/a | n/a   | n/a   | *** | n/a   |
| 1964           | 19  | --- | ---   | ---   | *** | 19    |
| 1965           | --- | 10  | ---   | ---   | *** | 10    |

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\*\*\* The introduction of new classification procedures in 1962 has resulted in the removal of the category "Other".

n/a Not Available.

Source: Dominion Bureau of Statistics Catalogue, No. 64-001.

Table D

LABOUR FORCE IN C. D. 12 - 1961<sup>1/</sup>

|  | <u>No. Employed</u> | <u>% of<br/>Labour Force</u> |
|--|---------------------|------------------------------|
| Agriculture                                      | 7,274               | 46.3%                        |
| Public Administration<br>and Defence             | 2,425               | 15.4%                        |
| Services   | 2,015               | 12.8%                        |
| Trade  | 1,102               | 7.0%                         |
| Transportation, Communi-<br>cation and Utilities | 1,020               | 6.5%                         |
| Construction                                     | 494                 | 3.1%                         |
| Manufacturing                                    | 304                 | 1.9%                         |
| Fishing and Trapping                             | 259                 | 1.7%                         |
| Forestry   | 161                 | 1.0%                         |
| Finance, Insurance, and<br>Real Estate           | 122                 | 0.8%                         |
| Mines, Quarries and Oil                          | 106                 | 0.7%                         |
| Other  | 446                 | 2.8%                         |
| TOTAL  | 15,728              | 100.0%                       |

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Source: (9)

<sup>1/</sup> Census of Canada, 1961. 3.2-5. Dominion Bureau of Statistics.

Table E

A PERCENTAGE COMPARISON OF THE NUMBER OF FAMILIES  
IN VARIOUS INCOME GROUPS IN ALBERTA AND C. D. 12 - 1961  
NON-FARM

| FAMILY<br>INCOME<br>LEVEL (\$) | PERCENTAGE OF TOTAL FAMILIES BY INCOME GROUPS |                              |
|--------------------------------|---|------------------------------|
|                                | <u>FAMILIES<br/>ALBERTA</u>                   | <u>FAMILIES<br/>C. D. 12</u> |
| Under 1,000                    | 10,963  | 956                          |
| 1,000-1,999                    | 16,986  | 798                          |
| 2,000-2,999                    | 21,611  | 701                          |
| 3,000-3,999                    | 35,105  | 806                          |
| 4,000-4,999                    | 40,019  | 942                          |
| 5,000-5,999                    | 34,753  | 482                          |
| 6,000-6,999                    | 25,606  | 406                          |
| 7,000-7,999                    | 17,185  | 237                          |
| 8,000-8,999                    | 17,943  | 190                          |
| 10,000-14,999                  | 13,355  | 105                          |
| 15,000 and up                  | 6,081   | 32                           |
|                                | <u>239,607</u>                                | <u>5,655</u>                 |

Average Income Per Family in C. D. 12 - \$3,752

Average Income Per Family in Alberta - \$5,606

Source: 1961 Census of Canada, Bulletin 4.1-3.



Table F A PERCENTAGE COMPARISON OF THE NUMBER OF PEOPLE NOT IN FAMILIES  
IN VARIOUS INCOME GROUPS IN ALBERTA AND C. D. 12 - 1961  
NON-FARM

| INCOME<br>LEVEL (\$) | PERCENTAGE OF TOTAL PEOPLE NOT IN FAMILIES |      |          |
|----------------------|--|------|----------|
|                      | BY INCOME GROUPS                           |      | C. D. 12 |
|                      | ALBERTA                                    |      |          |
| N41                  | 4,738                                      | 5.0  | 9.0      |
| Under 1,000          | 27,137                                     | 28.5 | 51.1     |
| 1,000-1,499          | 10,010                                     | 10.5 | 9.2      |
| 1,500-1,999          | 7,791                                      | 8.2  | 6.6      |
| 2,000-2,499          | 8,860                                      | 9.3  | 4.9      |
| 2,500-2,999          | 7,179                                      | 7.5  | 4.1      |
| 3,000-3,999          | 15,887                                     | 16.6 | 6.4      |
| 4,000-4,999          | 6,666                                      | 7.0  | 5.3      |
| 5,000-5,999          | 3,029                                      | 3.2  | 1.3      |
| 6,000-7,999          | 2,408                                      | 2.5  | 1.5      |
| 8,000-9,999          | 829  | 0.9  | 0.3      |
| 10,000 and up        | 807  | 0.8  | 0.3      |
|                      | 95,341                                     |      |          |
|                      | 2,111                                      |      |          |

Average Income of People Not in Families in C. D. 12 - \$1,442  
Average Income of People Not in Families in Alberta - \$2,286

Source: 1961 Census of Canada, Bulletin 4.1-3.

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